

NATURE, MAN AND GOD IN MEDIEVAL ISLAM

*ABD ALLAH BAYDAWI's text

Tawahî' al-Anwar min Matahî' al-Anzer

ALONG WITH

MAHMUD ISFAHANI's commentary

Matahî' al-Anzer, Sharh Tawahî' al-Anwar

EDITED AND TRANSLATED

BY

EDWIN E. CALVERLEY AND JAMES W. POLLOCK



NATURE, MAN AND GOD IN MEDIEVAL ISLAM

ISLAMIC PHILOSOPHY THEOLOGY AND SCIENCE

Texts and Studies

EDITED BY

H. DAIBER and D. PINGREE

VOLUME XLV



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VOLUME ONE



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CONTENTS OF VOLUME ONE

Acknowledgments	xv
Translators' Introduction	xvii
A note on the translation, its edition and revision	xvii
A note on 'Abd Allah Baydawi [d. 1316?]	xxvi
A note on Mahmud Isfahani [1276-1348]	xxxviii

THE TRANSLATION

Foreword to the Commentary by Mahmud Isfahani	3
Foreword to the Subject Text by 'Abd Allah Baydawi	9
Isfahani's Commentary to Baydawi's Text begins	10

AUTHORS' INTRODUCTION STUDIES IN LOGICAL REASONING

Chapter 1: Principles of epistemology	28
1. The two phases of knowing: an alternation between a. and b.	28
a. Concept formation regarding what is being perceived	28
b. Judgmental assent or dissent to features of the concept being formed	28
c. Each phase either by intuition or by rational acquisition of knowledge	28
2. Logical reasoning, the means of such acquisition	42
Chapter 2: Explanatory statements	48
1. Conditions that govern a definition	48
2. Classes of definitions	60
Razi's objections	64
Baydawi's reply to Razi	68
3. Realities definable and definitive	78

Chapter 3: Argumentation	82
1. Kinds of argumentation	82
Analogical deduction	82
Investigative induction	82
Illustrative analogical deduction	82
2. Analogical deduction in the syllogism and its types	88
The hypothetical exceptive syllogism	94
The categorical connective syllogism and the four figures	98
Figures 1, 2, 3, 4; Summary of figures and moods	100
3. The premised materials of argumentation	123
Argumentation structured on rationality—proof, rhetoric, fallacy	123
Argumentation structured on authoritative tradition	133
Chapter 4: The distinguishing properties of sound logical reasoning	137
1. Sound logical reasoning yields knowledge	137
Objections of the Buddhists	139
Objections of the geometricians	147
Corollaries to the yield of knowledge	151
2. Sound logical reasoning is sufficient for knowledge of God	158
3. Sound logical reasoning is obligatory for knowledge of God	161

BOOK ONE

REALITIES POSSIBLE

Section 1: Universals

Chapter 1: Classification of things known	171
1. According to the Asha'irah and the Mu'tazilah	171
2. According to the Philosophers and the Mutakallimun	176
Chapter 2: Existence and nonexistence	180
1. The conception of existence is intuitive	180
2. Existence is a commonality among all existents	187
A proof from negation	189
3. Existence is an addition to the quiddities	191

Ash'ari's variant argument	196
Special case of the necessary existent	198
The philosophers' variant argument	209
A corollary	211
4. The nonexistent is not a certainty externally	213
Argument of the Mu'tazilah on the non-existent	217
5. The attribute-state is to be excluded	221
 Chapter 3: Quiddity	229
1. On the quiddity itself	229
2. Classes of quiddity	234
Corollary regarding the simple quiddity	239
Corollary regarding the composite quiddity with distinguishable parts	241
Corollary regarding the composite quiddity with interpenetrating parts	242
3. Individuation	243
Whether individuation is existential	247
The philosophers' corollary	250
 Chapter 4: Necessity and possibility, eternity and temporality	255
1. These subjects are intellectual entities having no external existence	255
2. The distinguishing properties of necessity	261
3. The distinguishing properties of possibility	266
The possibility makes a possible reality have need for a cause	266
Neither state of a possible reality has priority	281
A possible reality's existence depends upon an effective cause	283
A possible reality needs its effective cause as long as it exists	284
4. Eternity	287
5. Temporality	290
 Chapter 5: Singularity and plurality	300
1. On the real nature of singularity and plurality	300
Singularity is not the opposite of plurality in essence	304
2. Classes of singularities	307

3. Classes of plurality	310
Objections regarding the black/white contrast	319
Some corollaries	320
Chapter 6: Cause and effect	326
1. Classes of cause	326
2. Multiple causes and effects	329
3. The difference between the cause's effective part and its limiting condition	336
4. Whether one thing can be both receiver and agent of causation simultaneously	336
<i>Section 2: Accidents</i>	
Chapter 1: General topics	341
1. The various kinds of accidental qualities	341
2. The impossibility of accidents transiting between substrates	346
3. Whether an accident can subsist in another accident	348
4. Whether accidents have permanent continuance	351
5. The impossibility of one accident subsisting in two substrates at once	355
Chapter 2: Quantity	360
1. Classes of quantity	360
2. Quantity in its essence and as an accident	363
3. On the nonexistential nature of quantities	365
4. Time duration	372
The external existence of time duration: arguments against	372
The external existence of time duration: arguments for	373
Theories on the nature of time duration	381
5. Place and void	387
Theories of place	387
Chapter 3: Quality	405
1. Sensate qualities	405
Classes of sensate qualities	405

Touch sensations	408
Temperature: heat	408
Temperature: cold	411
Humidity	412
Weight	413
Texture	416
Vision sensations	418
Color strength	421
Nature of light	422
Hearing sensations	427
Taste sensations	431
Smell sensations	433
2. Psychic qualities	434
The living nature [or, life and its absence]	434
Perception and knowledge	439
Corollaries to the mental form	457
The rational soul's four stages of intellectual development	460
The power of autonomous action and the willing nature	463
Pleasure and pain are self-evident concepts	469
Health and illness and related emotions	474
3. Qualities specific to quantities	476
4. Qualities of predisposition	477
 Chapter 4: Accidents of relation	 479
1. Whether they appear in external existence	479
2. The case of 'place-where'	482
Gradual motion-change in quantity, quality, position and place-where	488
General factors necessarily involved in gradual motion-change	498
Types of force required to make gradual motion-change necessary	506
Whether quiescence occurs when straight-line motion changes direction	510
3. The case of the adjunctive relationship	512
On priority in the adjunctive relationship	518

Section 3: Substances

Chapter 1: Bodies	523
1. Definition of a 'body'	523
2. Leading doctrinal theories on the parts of a body	533
The Mutakallimun argument that a body is a composite of indivisible atoms	534
The philosophers' arguments against the composition of bodies from atoms	546
The philosophers say a body is a continuity in itself and divisible without limit	553
Corollaries to the philosophers' doctrine of a body	558
3. Classes of bodies	571
Simple bodied celestial spheres	571
Corollaries to the existence of the spheres: their ethereal nature	585
Corollaries to the existence of the spheres: motion in circular rotation	589
Simple bodied celestial orbs are fixed in the spheres	592
Simple bodied elements: fire, air, earth, water	593
Composite bodies are made from the elements	599
4. Bodies as temporal phenomena	603
Theories of the philosophers on cosmogony	603
Arguments for the temporal nature of bodies	611
Bodies would have been quiescent if they had been present in past eternity	611
Bodies are possible realities and are caused	620
Bodies are inseparable from temporal phenomena	624
Arguments against the temporal nature of bodies	625
5. Bodies as limited entities	639
Chapter 2: Incorporeal substantial beings	644
1. Classes of incorporeal substantial beings	644
2. The intellects of the celestial system	648
Intellects of the celestial system transcend the limitations of matter	659
3. The souls of the celestial system	661
4. The incorporeal nature of human 'rational souls'	666

Reason provides evidence of the rational soul's	
incorporeal nature	667
The rational soul's knowledge about God is not	
divisible as matter	667
Rational souls can perceive contraries	
simultaneously	672
Rational souls conceived as material bodies could	
not think freely	673
Rational souls can comprehend intelligibles without	
limit	677
Rational souls conceived as material bodies could	
not perceive universals	679
Tradition provides evidence of the rational soul's	
incorporeal nature	681
5. The temporal nature of rational souls	684
6. The rational soul's linkage to the body and	
governance within it	690
Powers of external perception	693
Sight	693
Hearing	697
Smell	697
Taste	698
Touch	698
Powers of internal perception	699
Coordination	699
Imagination	701
Estimation	702
Memory	703
Execution	704
Powers of body motion-change that are voluntary	
and elective	707
Powers of body motion-change that are naturally	
autonomic	709
7. The permanent survival of the rational soul after	
the body's death	716

CONTENTS OF VOLUME TWO

BOOK TWO REALITIES DIVINE

Section 1: The essence of God

Chapter 1: Comprehensive knowledge about God	727
1. Invalidation of circular and infinite series arguments	727
2. Proof for the existence of the Necessary Existent	740
3. Experiential knowledge of God's essence	744
 Chapter 2: Qualities not properly attributable to God	749
1. Exclusion of resemblance between God's reality and any other being	749
2. Exclusion of corporeality and regionality	755
The argument of the corporealists	758
3. Exclusion of union and incarnate indwelling	761
4. Exclusion of temporal phenomena from subsistence in God	767
5. Exclusion of sensate qualities	778
 Chapter 3: Doctrine of the divine singularity	784
1. Arguments of the Muslim philosophers and of the Mutakallimun	784

Section 2: The attributes of God

Chapter 1: Established attributes, the basis of God's acts	803
1. God's omnipotence in autonomous action	803
Divine omnipotence related to some problems of logic	812
God's omnipotence in autonomous action is over all possible realities	821
2. God's ever-present omniscience	829
An argument at variance	839
Corollary 1: God comprehends all intelligibles	842
Corollary 2: God's 'knowledge' and 'power' are entities distinct from Himself	848

3. God's living nature	867
4. God's will	868
God's will is not a temporal phenomenon	875
Chapter 2: Other attributes, not the basis of God's acts	879
1. God's hearing and sight	879
2. God's speech	884
God's spoken word is truthful	886
3. God's immortality	887
4. Other qualities that al-Ash'ari named attributes	890
5. God's production of being	892
6. God's beatific visibility to believers in the hereafter	896
Mu'tazilah arguments at variance	906

Section 3: The acts of God and the acts of mankind [by topics]

1. On the acts of mankind	915
Mu'tazilah doctrine, "Autonomy" in human acts	921
Asha'irah doctrine, "Compulsion" in human acts	929
2. God is the agency that wills moral phenomena in all creatures	931
3. On predicating the good and the heinous	941
4. God is under no obligation whatsoever	945
5. God's acts are not based on hidden purposes	948
6. Obligations imposed are God's notice to humankind of a final life evaluation	952

BOOK THREE
REALITIES PROPHETIC

Section 1: Prophethood [by topics]

1. Mankind's need for the Prophet	959
2. The possibility of miracles [in psychology and religion]	968
3. The prophethood of the Prophet Muhammad	984
Refutation of the Brahmans' doctrine on the intellect	995
Refutation of the Jews' doctrine on the Mosaic Law	1000
4. The blamelessness of the prophets	1003
Blamelessness is a psychic possession preventing iniquity	1014
5. The prophets are superior to the angels	1017

6. The signs of divine favor [given to saints and prophets]	1023
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Section 2: The resurrection assembly and the recompense [by topics]

1. Restoration of the vanished nonexistent	1027
2. The Resurrection Assembly of human bodies	1036
Whether the body's atomic particles actually will be annihilated then restored	1042
3. The Garden and the Fire	1043
The Garden and the Fire are created entities	1048
4a. The Mu'tazilah on reward and punishment	1052
4b. The Asha'irah on reward and punishment	1064
5. Pardon and intercession for those guilty of the dreadful great sins	1073
6. Certainty of earned torment in the grave	1078
7. Other traditional doctrines	1080
8. The terms 'faith' and 'evidential practice' in the religious code	1081

Section 3: The supreme leadership of the Muslim community [by topics]

1. On the obligation to appoint a supreme leader	1089
The Sunni Asha'irah argument of human traditional responsibility	1089
The Imamiyah argument of the divine benevolence	1093
2. The attributes of an Imam	1095
Blamelessness not a prerequisite	1098
3. Criteria to be met in appointing an Imam	1101
4a. The rightful Imam after the Prophet: Abu Bakr in Sunni doctrine	1104
4b. The rightful Imam after the Prophet: 'Ali in Shi'ah doctrine	1112
5. The excellence of the Companions	1133
Table of Romanization	1137
Glossary	1139
Illustrations to Book 1, Section 3	1149
Bibliography	1157
Index	1163

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And to Rachel Pollock who encouraged with faith and yeoman help,
“We stand among those returning gratitude to you.”

We bear in mind also and always the happy milieu of librarian and teaching friends at Indiana University, Bloomington. One of these at the outset intoned, while tapping mentally on the very present idea of a word processor, “Without such as this, that book project is not possible!” Others there assisted in making working photocopies of the two source printed editions and in printing for the same use enlargments of four of the manuscripts on microfilm purchased from the Princeton University Library collections. And other librarians have served this cause in greater or lesser ways.

Hearty thanks likewise to Professor James C. Spalding of the University of Iowa School of Religion, who initially read portions and gave supportive advice, and to cousins Max and Dorothy Davidson for their kindly guidance on editorial format and style, and to brother John C. Pollock for timely corrective adjustment of syntactical perspective. Indeed, all who speak to this translation will have aimed to its improvement.

Many other souls are there too,
In widening rounds of interest—
Of circles nominal, about the globe, in all time beyond—
“Fa-naḥnu lakum min al-shākirīn”,
In translation, above.

James W. Pollock

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TRANSLATORS' INTRODUCTION

A NOTE ON THE TRANSLATION, ITS EDITION AND REVISION

Edwin Elliott Calverley (1882–1971) prepared in draft a complete English translation of the double-book summary of Islamic natural and revealed theology comprising Mahmud al-Isfahani's commentary entitled *Matali' al-anzar, sharh Tawali' al-anwar*, together with its subject text, 'Abd Allah al-Baydawi's *Tawali' al-anwar min matali' al-anzar*.

The two works were published together in multicopy editions by printing presses, first by lithography in Istanbul in 1305/1887, designated 'L' herein, then by typesetting in Cairo in 1323/1902, designated 'T' herein. In these two printed editions each division al-Baydawi made in his concise text was followed by the presentation of Isfahani's commentary on that division. The editors of T based their work on L, while checking the text with available manuscripts. They corrected most of L's scribal errors but added some typographical errors in the process.

Calverley purchased an excellent manuscript copy of the Isfahani commentary from Istanbul through an agent he had commissioned, and he designated this personally owned manuscript "MS 875" in his draft, from the Hijri date of its completion, A.H. 875/A.D. 1470. Due to the editor's use of another MS also dated 875, Calverley's manuscript is herein designated simply the 'MS'. With L and T the 'MS' has been closely relied on as a translation source. It may be read in the Lilly Library, Indiana University, Bloomington.

Calverley wrote a summary of his work and a description of his purchased manuscript in an article published in the *Muslim World* in 1963,¹ where he expressed the hope of his work's early readiness for publication. From dates in Calverley's materials his work on this double-text extended from about the middle 1930's ("5 August 1937" on translation ms p. 168) up into the early 1960's ("24-4-63" on L p. 88). He wrote, "End of Translation, 20 September 1962 EEC",

¹ "Al-Baydawi's *Matali' al-Anzar*, a Systematic Theology of Islam", *Muslim World* 53 (1963) [293]–297.

on his translation p. 2462, with date and initials on L p. 487, but as noted his work of revision was obviously a continuing concern.

Calverley retired from his teaching post in Arabic and Islamic Studies and editing the *Muslim World* at Hartford in 1952, and Dr. Kenneth Cragg was named his successor. In 1956 Dr. Elmer H. Douglas (1903–1990) followed Cragg in the teaching role, and later in the journal's editorship. Then in 1965 Douglas took a three-year leave from Hartford to accept a call to teach in Trinity Theological College in Singapore.

On leaving Hartford in 1965 Douglas paid a farewell call on Professor Calverley who was living at Avery Homes, a retirement care facility. On that occasion Calverley requested him to finish preparing the Baydawi/Isfahani translation for publication. Douglas accepted this task, and thereupon took home with him the translation and its apparatus. In 1968, after returning to the States, Douglas formally retired from Hartford Seminary, then took up the Calverley translation project as well as his own research and production of translations and studies of Arabic authors, although realizing that his sight had begun to fail.

In 1975 Professor Douglas invited James W. Pollock, who had been a student of both Calverley and Douglas at Hartford, to take over the work on Calverley's translation draft. He affirmed very clearly to Pollock that his friend Calverley had placed no limiting conditions whatsoever on the handling of the unfinished literary product or on its apparatus. The same understanding has governed also in the transfer of this privilege and responsibility from Douglas to Pollock.

The literary materials received in 1975 from Professor Douglas included:

1) Calverley's copy of L, the Istanbul lithograph of 1305/1887 that includes both Baydawi's *Tawālī' al-Anwār* and Isfahani's commentary upon it;

2) Calverley's manuscript of the Isfahani commentary alone (dated Rabi' I, 875/1470), to be known herein as the 'MS';

3) Some 107 pages [about 20–25 by Calverley, and about 80 by Douglas] of typed transcription of the handwritten translation draft; and

4) Calverley's handwritten translation draft (in easily legible script mostly in pencil), totalling 2462 pages of loose-leaf 9" × 6" paper. When these pages of the translation draft were collated, one leaf

(= 2 p.) was noted as missing, so it was retranslated. All together they filled 16 ring-binder loose-leaf notebooks.²

With Pollock as editor, the translation project, requiring copying into typescript, a general editing and close revision, moved steadily from 1975 but did not gain momentum until there were larger blocks of time available in a 1986 sabbatical leave and after retirement from library employment on August 31, 1987.

The partial table of contents printed in L and T was translated, filled out completely, and correlated closely with the content of the divisions according to Baydawi's intent and Isfahani's explanations. It serves as an overview of the subject matter that Baydawi had mentally outlined with clarity and logic. One is informed by this concise outline rather than mystified, as one may be with the books of Baydawi's close compeers, as in the three-volume Teheran 1980's edition of Ibn Sina's *Isharat* with the commentaries by Nasir al-Din Tusi and Qutb al-Din Razi, the Cairo A.H. 1332 reprint edition of Fakhr al-Din Razi's *Muhassal* with Tusi's *Talkhis*, and the Cairo 1983 edition of 'Adud al-Din Iji's *Mawaqif*. Pagings for these titles cited in our footnotes are from these editions.

In preparation for the major task, these and other source materials were purchased, plus a fairly complete library of the available literature on the main fields covered, the *Encyclopaedia of Islam* new edition being on a most useful and valuable personal subscription.

Working photocopies of both L and T on durable new paper were made and bound. From the Princeton University Library, microfilm copies were purchased of three MSS of Baydawi's *Tawali' al-anwar min matali' al-anzar* alone: Garrett 283B (dated 718 A.H./1318-19 A.D.),

² The microfilm copies of manuscripts mentioned in Calverley's 1963 *Muslim World* article were not present among these translation materials, nor was Dr. Calverley's copy of 'T', the Cairo typeset edition of 1323/1902 based on 'L', present among the materials received.

This latter book was later found and cataloged when Pollock as Indiana's Near East Librarian came across it in a Collection of Arabica formerly owned by Dr. Calverley. This special collection came into the temporary custody of Indiana University Library in 1981 and remained there to about 1990. Concordia Seminary in St. Louis, which had purchased Dr. Calverley's entire library, had placed his Arabic books with Indiana for servicing and circulation among an active clientele in Arabic Studies. Due to the cost to both institutions for preservation measures, Indiana University decided to terminate the arrangement and so returned the Arabica collection to Concordia.

Garrett 989Hb (dated Dhu al-Hijjah 874/1470) and Garrett-Yahuda 3081 (dated by R. Mach "before 850 H."/1446). Also from the same library, copies were purchased of two MSS of Isfahani's commentary, *Matali' al-anzar sharh Tawali' al-anwar*: Garrett-Yahuda 4486 (dated 864/1459-60) and Garrett 989Ha (dated Safar 875/1470).

Calverley's handwritten translation contained repeated notices to himself of required reworking that he had hoped to provide, while revised passages were often present alongside earlier drafts, and frequent alternate wordings for terms, phrases and clauses remained throughout. Furthermore, as a consequence, the constant and normal exact repetition of statements in scholastic dialogue usually was lost to view in the draft. Calverley had begun typing a copy of his handwritten work, but near the beginning of the introduction an oversight was made where a single sequential page numbering for two different drafts was entered on the typed pages.

It became clear to the editor, therefore, that a close and complete revision of the whole translation draft was necessary. This has been done with care, with affectionate personal and professional respect for our forebear, and with constant reliance upon his massive accomplishment. This editorial liberty was taken with an awareness of both its present privilege and in turn the book's future critical review, knowing that the latter would be intended for improvement in the art and effort of translation, so that the book in hand could be held as a 'fair copy' and valuable, while in English.

The intended readership of this translation

This translation's intended readership begins among the ranks of medievalist and Islamist scholars. Within this specialized readership the Editor hopes for and is relying primarily on a judgmental balance scale on which, as a result of these scholars' professional assays, the pointer is tending toward approval. Preliminary critiques have indicated basic factors that should characterize a translation to make it useful. Our 'reach' has been for these factors, and as they have come within our 'grasp' they have been incorporated here.

In addition, and beyond this difference between specialist and non-specialist readers, by presenting the work in English, we are seeking to interest everyone who wants to study the structure of Islam in

itself along with its relationships with other civilizations. This wider readership extends to all students, leaders and followers, both in the religious faiths and in secular thinking as well, within the global community that is more familiar with the use of English than it is with Arabic. Naturally, the expectations and informational needs of such a readership are wide and varied. The translation of this classical Arabic summary of Islamic philosophical theology is provided to help meet every reader's preliminary wish to know and understand, and we hope it will not preempt anyone's impulse to exercise further scholarly initiative. Furthermore, to afford a panoramic measure of the subject field, this translation aims only to follow the authors at a suitably distant elevation, giving readers a liberating intermediacy between an editor's effort to produce an outer space mental view of complete information totality—always Baydawi warns against such absurd impossibilities—and a reader's terrestrial pedestrian experience of laborious gleaning of knowledge. Although some scholars already have pronounced the era of Baydawi's philosophical and religious thought to be moribund, there are others who recognize it as a plateau, an intellectual staging area, and the threshold to agile and creative new phases.

In Professor Calverley's article cited above regarding this translation, he had pointed out how useful Baydawi's Qur'an commentary was to Muslim and non-Muslim scholars alike in their study of Islam. He reasoned that since Baydawi's commentary was important for interpretation and learning, then the same author's summation of the Islamic theology underlying his commentary would also have a continuing importance. The extent of its significance has yet to be estimated and realized. Furthermore, Dr. Calverley chose *Nature, Man and God in Medieval Islam* as the English title for this translation in order to relate it both to ongoing studies and to *Nature, Man and God*, the Gifford Lectures by Bishop William Temple, a memorable presentation published in 1934.

Two University of al-Azhar dissertations on Baydawi were published in the early 1980's, as cited in full in Baydawi's biographical sketch just following here. In addition, Professor Muhammad al-Zuhayli of the University of Damascus published his book, *al-Qadi al-Baydawi*, in 1988. All three of these modern writers are active in the field of Islamic law, in which Baydawi had served in his professional capacity as judge. Professor Zuhayli states [p. 156]:

[Baydawi's *Tawali' al-anwar*] is superior for the excellence of its topical arrangement and interior subdivisions, its precision of expression, its focus on demonstrated proofs, and its comprehensive use of the technical terms of theological statement.

The setting in which Baydawi and Isfahani worked

The historical and intellectual setting in which the two authors worked must be clear to every reader's awareness as we proceed in this translation. The hope is that interested students will note and appreciate the intellectual landscape of our authors' worldview as they state what they mean with emotional perseverance and convinced judgment. Here we should note the aptness of their book titles for this purpose. Baydawi's name for his concise text as it may be translated, "*Rays of dawnlight outstreaming from far horizons of logical reasoning*", is more than a short-lived floral centerpiece of words. Indeed, it connotes both the physical presence of the mountainous terrain of his native Iran and the palpable intellectual milieu of the great minds who personify the high peaks and far horizons of logical reasoning. Then Isfahani's title inverts Baydawi's wording and gives a different perspective in which the connotations are likewise immediately perceptible, also as translated, "*High vistas of logical reasoning, a commentary on 'Rays of dawnlight outstreaming.'*"³ Through these titles Baydawi and his Commentator together make the plain statement of their admiration and respect for the work of those other scholars, contemporary and past, from whom came these "Rays of dawnlight outstreaming." From Aristotle to Ash'ari and Jubba'i, to Ibn Sina, Ghazali and Fakhr al-Din Razi, Baydawi gathered their 'dawnlight rays' of careful thinking and systematically focussed them into a clear and coherent picture, very much worth the observation.

A time chart is presented herewith showing the relative dates of Baydawi and Isfahani together with dates for other great scholars looming up in this panorama.

³ A third writer closely related to these two is 'Adud al-Din Iji, who like Mahmud Isfahani was a student of a student of Baydawi. The translated title of his summary work is "*The main route stations in an exploration of the science of theological statement*" [= *al-Mawaqif fi 'ilm al-kalam*]. The memories of mountains and roads around their home towns of Bayda', Isfahan and Ij helped in mentally formulating their book titles. Isfahani as an ex-patriot in Egypt well remembered the 'high vistas'.

A TIME CHART RELATING SELECTED MEDIEVAL PHILOSOPHERS
AND THEOLOGICIANS

C.E.	
800	Kindi, ca. ? 801-66; Ash'ari, Abu al-Hasan, 873/4?-935/6; Jubba'i, Abu 'Ali Muhammad, d. 915/6; Jubba'i, Abu Hashim 'Abd al-Salam, d. 933; Ka'bi al-Balkhi, Abu al-Qasim, d. 931 or 2; Maturidi, Abu Mansur, d. 944
900	Farabi, 875-950; Sijistani, 912?-985; Yahya ibn 'Adi, d. 974; Baqillani, 940-1013; Qadi 'Abd al-Jabbar, d. 1025; Isfarayini, Abu Ishaq, d. 1027; Ibn Sina, Abu 'Ali (Avicenna), 980-1037; Abu al-Husayn al-Basri, d. 1044
1000	Ibn Hazm, 994-1064; Juwayni, Imam al-Haramayn, Abu al-Ma'ali, d. 1085; Anselm, 1033-1109; Abelard, 1079-1109; Ghazali, Abu Hamid Muhammad, 1058-1111
1100	Nasafi, Abu Hafs 'Umar, d. 1142; Shahrastani, Muhammad ibn 'Abd al-Karim 1086?-1153; Ibn Rushd, (Averroes) 1126-1198; Ibn Maymun, (Maimonides) 1135-1204; Shihab al-Din Yahya Suhrawardi, 1154-1191; Fakhr al-Din Razi, 1150-1210
1200	Tusi, Nasir al-Din, 1201-1274; Thomas Aquinas, 1225-1274; Ibn Kam-muna, d. 1284 or 85; Shams al-Din Muhammad Shahrastari, 13th c.; Ibn al-'Ibri, (Bar Hebraeus) 1225 or 6-1286; BAYDAWI, 'Abd Allah, ca. 1225?-1316?; Ibn al-'Assal, Abu Ishaq Ibrahim, d. 1260?; Hilli, Hasan ibn Yusuf Ibn al-Mutahhar, 1250-1325
1300	ISFAHANI, Mahmud, 1276-1348; Iji, 'Adud al-Din, 1281-1355; Taftazani, Sa'd al-Din Mas'ud, 1322-1390; Ibn Khaldun, 'Abd al-Rahman, 1332-1382 Jurjani, 'Ali ibn Muhammad, al-Sayyid al-Sharif, 1339-1413

Baydawi frequently referred to the authors of the scholarly works that were his sources using their honorary titles or nicknames by which they were familiarly known. The first such title encountered without a full name given with it is the "Shaykh" ['Venerable Teacher'] in his book "*al-Isharat*" [at L 14], which, as here, when given with his book title clearly means Ibn Sina. But more commonly used for Ibn Sina are the titles "Imam" ['Leader in Islam'] and "Hakim" ['Physician-Philosopher'], the latter being distinctively his. The titles Imam and Shaykh are commonly and widely used of various individuals. Indeed, "Shaykh" more frequently refers to Ash'ari, the founding scholar of the orthodox Sunni school of thought, and "Imam" more frequently refers to Fakhr al-Din Razi, the aggressive Sunni spokesman for the generation just before Baydawi's career, while "Ustadh", ['Professor,'] is applied only a few times to Abu Ishaq al-Isfarayini. The editors of the Cairo typeset edition (at T 14) identified Razi as the person intended by Baydawi's short reference, "The Imam", but L (at L 30) and two manuscripts, the MS and

MS Garrett 989Ha, both completed in 875/1470, did not notice the need to add this identification. Again, at (L 63) "The Imam" is sufficient for identification as Razi's book title *al-Muhassal* accompanies and clarifies the reference.

One notices the contrast in Isfahani's commentary. For the benefit of the Mamluk King Nasir Muhammad, Isfahani, much more often than Baydawi, has identified formally the authors who were quoted or were the objects of his criticisms. It seems very evident that both our authors expected their listeners and readers to be studying the great writers concurrently with their lecture courses, and therefore not to be in constant need of orientation. But such expectations often were beyond medieval students, just as they are beyond most modern learners. The excellent manuscript of Isfahani's commentary that was owned by Professor Calverley is peppered with tiny glosses of coded author information that were added from 1470 onwards by successive determined owners who were either advanced graduate students or active as teachers.

Fakhr al-Din Razi and Ibn Sina appear to be the most influential scholars in Baydawi's thought. As is the custom among academic lecturers in any given field of knowledge, our author had assimilated the teachings of his great forebears, quoting longer or shorter word strings or restating them as the best current understanding of the topic in hand. Razi's *Compendium* (= *Muhassal*) was most helpful to Baydawi with its survey and sifting of the leading thinkers both "ancient and modern." Regarding Ibn Sina, perhaps we may characterize this gifted doctor of medicine and of philosophy as having verbal hyperfluency—with occasionally the smallest trace of a 'benevolent unconcern'—that continues to push many another scholar to the limits of their ken for logical meaning control!

These two influential writers, Ibn Sina (d. 1037) and F.D. Razi (d. 1210), well represent the two parallel and mostly distinct currents of intellectual activity flowing in the Islamic community's common stream of consciousness. These were [naql] the traditional 'religious' current and [ʿaql] the rational 'philosophical' current. Coming down to Baydawi's time were other scholars with Razi in the traditional current, including the two Jubba'i's, Qadi 'Abd al-Jabbar and Abu al-Qasim Ka'bi al-Balkhi, Ash'ari, Baqillani, Imam al-Haramayn al-Juwayni, Ghazali, Nasafi, Shahrastani, Abhari and Tusi. Along with Ibn Sina in the rational current are the philosophers following Aristotle, Kindi, Farabi, and Ibn Rushd.

Since the Islamic community's common stream of consciousness supported the flow of both these currents, it should not be surprising that scholars in each current would be to some degree borrowing concepts and arguments from scholars in the other current. Each of these 'mostly distinct' thought currents had its spokesmen who vigorously struggled to advance the legitimacy and supremacy of their own way of thinking. Great books were written, such as Ghazali's *Tahafut al-Falasifah*, (= *The Annihilation of Philosophy*), and great debates were held. The thought of Ghazali, the champion of 'tradition', was full of 'rational' terms and arguments. And Ghazali's effort called forth a worthy rebuttal from Ibn Rushd (who was called Averroes north of the Mediterranean), who wrote *Tahafut al-Tahafut* (= *The Annihilation of [Ghazali's] "Annihilation"*). Baydawi was a strong supporter of the 'Kalam' movement in traditional theology which actively reached out and incorporated many terms and arguments from philosophy. The struggles and interplay of ideas between the 'traditional' and the 'rational' currents began among the early Mu'tazilah and continued for many decades broken only by what appear to be informal 'historical rest periods'. Truly, the Islamic community's stream of consciousness, like that of other religious communities, has been at times a flow of 'seething rapids' and 'white water'. And at times the contrasting moods of 'white water rapids' versus 'calm tranquillity' are both to be found within the career and writings of an individual scholar.

On the translation of arabic theological and philosophical terminology

Our general intention with this English translation is to provide an important Muslim classical summary statement of Islam which may illumine a wider understanding of this civilization and its religious foundation. We have striven in sympathy to bring over the mind and expressions of the authors. In dealing with the writers' fertile Arabic language, to use a good earth metaphor, we have 'plowed and disked' the material into the English form of our day. The footnotes deal with greater or lesser questions that arise in the field of study, as the many glosses by the medieval book owners demonstrate. However, as translators we have declined to dissertate. Now in a nautical metaphor, we found that to chart and encompass all the intellectual deeps and sweeps of this history and its culture would

require sailing and remaining far far beyond the value-added feature of the plain English we intend.

Specifically, we have attempted to match English to Arabic terms in their context, the choice here balancing between 1) the correlation with contemporary plain meanings, and 2) the following of traditional scholarship, with notes explaining their relative values. We cannot rely strictly on past scholarly tradition in matching English with the Arabic. Over time there comes a failure in the necessary creative tension between a reader's subjective conception of a term and the objective application of it. Therefore, some older valid expressions have been redesigned and struck into English, and are here offered as new bearers of meaning.

Our hope is that many students will discover in this translation more aspects of history and theology that invite their own research and recording. Wherein the question in choosing a source book for comparative studies in religion may concern merely varying tastes in values, students can at least agree with the saying, "*De gustibus non est disputandum.*" But wherein an excellent description of a classic human religious posture provides needed material for analytical reflection and intuitive composition,—in a scholarly community of mutually active good will,—then all devotees of knowledge and friendly meeting will do well when we shall think again together.

A BIOGRAPHICAL NOTE ON 'ABD ALLAH IBN 'UMAR AL-BAYDAWI

'Abd Allah al-Baydawi was born near Shiraz, Iran, in the village of Bayda'. No date of his birth can be found, but it was before the family moved into Shiraz upon his father's appointment as chief qadi there. This appointment came sometime during the 34 year period, 1226–1260, when Abu Bakr ibn Sa'd ibn Zangi governed in Shiraz as Atabeg of Fars province. Thus, Baydawi was probably born in the first half of the 7th/13th century; less vaguely, but arbitrarily, we will say that he was born 'ca. 1225?' He would have lived through the major upheaval of Islamic civilization when Hulagu and the Mongol armies overthrew Baghdad and killed the caliph in 1258, then went on to establish the Ilkhan [or, Mongol "Viceroy"] kingdom in Persia with Tabriz as its capital. Depending on when he died, Baydawi could have lived as a citizen under the rule of up to eight of the different Ilkhans, from Hulagu [1256–1265] to Uljaytu [1304–1317].

The establishment of the Ilkhan rule in Persia after the Mongols' violent entry into southwest Asia made the populace there extremely apprehensive of what might happen next. It is natural that people of all classes in Persian society would have studied closely the actions and judgments of each Ilkhan ruler for anything that might affect the welfare of their cities and institutions, as well as of themselves, their families, and their neighbors.

It was known that Hulagu's favorite wife and many of his soldiers came from Christian communities that the Nestorians had established in Asia, and although the Ilkhan himself was not a Christian, he indeed showed favor to this group in society. On the other hand, his son the next ruler, Abaqa [1265–1282], was openly a Buddhist and supported that faith, while one of his wives was a Christian. At one time the Shi'i community had been in favor, and although Takudar Khan [1282–1284] had been a Muslim and called himself Ahmad, no faith was set up as the state policy until 1295 when Ghazan Khan took the name Mahmud and embraced Islam in the Sunni form.

Berthold Spuler relates how this Ilkhanid policy of religious toleration was considered a "necessary expedient of internal administration."⁴ Externally, the Ilkhans together with the states and the church of European Christendom became very much interested in developing a mutual relationship, but commerce and communication by land between them were hindered by the strong Muslim Mamluk state in Egypt and Syria.

Although these changes in religious loyalties and the consequent favoritism of the Ilkhan rulers for certain groups did have unsettling effects on the total populace of their empire, nevertheless, their political and military strength in defense of the empire, and their concern for its internal peace and prosperity together provided the opportunity for flourishing growth in the arts, literature, religious studies, and the sciences. Scholars offering different subject specialties and representing various religious and philosophical worldviews moved

⁴ *The Muslim World, a Historical Survey, Part II The Mongol Period*/by Berthold Spuler; translated from the German by F.R.C. Bagley. Leiden, E.J. Brill, 1960, p. 31 in the chapter "The Ilkhans in Persia", pp. 25–42, with maps between pages 68 and 69. See also Spuler's contribution of the historical part to the article, "Ilkhans", in the En-I-2.

to Tabriz and Shiraz as leading cities in this now relatively peaceful land. Learning, teaching, and writing opportunities were plentiful and were used to advantage.

It is reasonable to surmise that a continuing need was felt among leading members of the majority Muslim population for an up-to-date intellectual defense and summary presentation of the Islamic worldview, the foundation of their civilization. It became 'Abd Allah al-Baydawi's concern to provide the arguments and system of ideas that would serve this purpose.

His great-grandfather 'Ali had been a respected local imam in Bayda', his grandfather Muhammad had been chief qadi in Shiraz, and his own father 'Umar followed in the steps of the grandfather in the same high post—a lineage of accomplishment, honor, and prestige. This household of 'ulama' was one of learning and legal precision. The family's traditional role was in public service and it was active at the level of the basic religious foundation of society.

Two dissertations on Baydawi's life and work were published at the beginning of the 1980's by students at the University of Al-Azhar in Cairo. One, by Jalal al-Din 'Abd al-Rahman,⁵ was a study of Baydawi's career in jurisprudence and its lasting influence in Islamic society, while the other, by 'Ali Muhyi al-Din 'Ali al-Qarah Daghi,⁶ is complementary to the first, being a study and critical edition of one of Baydawi's book on jurisprudence. Regarding the life and times of Baydawi, Qarah Daghi observes that our author was saved the necessity of traveling abroad to obtain advanced education, first by the library and teaching availability of his father, and second by the variety of talented specialists in the ranks of the scholars who had moved out of war-ravaged territories and gathered in Shiraz.⁷ That he made attentive use of these advantages is attested by his reputation in which he surpassed his peers in knowledge of the various religious sciences and became known for his learning beyond his own province.

⁵ Entitled, *al-Qadi Nasir al-Din al-Baydawi wa-Atharuhu fi Usul al-Fiqh*, [Cairo]: Dar al-Kitab al-Jami'i, 1981.

⁶ Entitled, *al-Ghayal al-Quswa fi Dirayat al-Fatwa/ta'lif Qadi al-Qudat 'Abd Allah ibn 'Umar al-Baydawi*. [A study, critical edition, and annotation] by 'Ali Muhyi al-Din 'Ali al-Qarah Daghi. Al-Dammam, Saudi Arabia: Dar al-Islah, [1982].

⁷ 'Ali al-Qarah Daghi, *op. cit.*, pp. 58–59.

The events in Baydawi's life that can be aligned with dates of fair certainty are few. The date of his birth had not been reported, and for his death so many conflicting dates have been recorded that its date also is regarded as uncertain. A number of medieval biographers, led by Khalil ibn Aybak al-Safadi [d. 764/1363], place it at 685/1286, and this date is still accepted by many as probably correct.⁸ Evidence for it, however, seems blurred and inconclusive. Other writers name dates a few years later. Hamd Allah Mustawfi Qazvini [fl. 1330–1340] wrote in his *Tarikh-i Guzidah* [p. 706] that Baydawi died in 716/1316–17. As a summary of the different dates mentioned two are in the 680's Hijri, three are in the 690's, and two are in the first two decades of the 700's Hijri. Baydawi had composed a world history that included events down to 674/1275, but the terminal date in this history comes well before the earliest date suggested for his death.

From information that has been assembled in the two dissertations mentioned, and in the biographical notices in the two editions of the *Encyclopaedia of Islam*, and especially in the illuminating study of the question by Josef van Ess,⁹ a tentative outline is suggested herewith for our author's life taking it up to 716/1316.

The friendship of the Atabeg of Fars province for the Baydawi family ended with that governor's death in 658/1260. 'Abd Allah Baydawi's father, 'Umar, continued serving the province as chief judge, Qadi al-Qudat, or, with the new title and rank of a Senior Judge of the Empire, 'Qadi al-Mamalik', to which the late Atabeg had named him.

⁸ Examples are the mention by H.T. Norris, "Shu'ubiyya in Arabic literature", *Abbasid Belles-Lettres* [p. 37], and John Burton, "Quranic exegesis", in *Religion, Learning and Science in the 'Abbasid Period* [p. 52]. These two titles comprise the second and third volumes of the series, *Cambridge History of Arabic Literature*, both volumes being published in 1990.

⁹ "Das Todesdatum des Baidawi", in *Welt des Orients*, v. 9 (1978), pp. 261–270.

William Montgomery Watt follows van Ess, saying of Baydawi, "His death probably occurred in 1308 or 1316, though earlier dates are mentioned." [Watt, *Islamic Philosophy and Theology, an Extended Survey*, [2nd ed.], Edinburgh University Press, 1985, p. 137.]

Van Ess listed these two dates as most probable, giving his preference to the evidence for the second. He says that there is factual evidence regarding Baydawi from the two to three decades following the traditionally accepted date of his death [685/1286] and this requires an entirely new study of his life [p. 269].

When ‘Umar al-Baydawi died in 673/1274–5, we will assume that his son ‘Abd Allah applied for and was granted the appointment, possibly doing so in person on a special trip to Tabriz, and so came into office as chief judge in Shiraz. Some years earlier, when ‘Abd Allah Baydawi had begun his career in public office, he had received successive appointments as qadi in a series of small towns in the Shiraz district, surely including his home village. Baydawi’s professional expectation had been of a long career in office, like his father and grandfather before him. Having studied all his life, he knew very well not only his specialty subject of jurisprudence but all the other religious sciences that were the foundation of Islamic civilization.

In the years of his early career, we surmise that he may have grown impatient for the wider public service and recognition that he expected. Individual judicial cases of people innocently or willfully entangling themselves in the details of the public law no doubt could have worn down his patience to the point where he began to act and speak outwardly as he may have thought and wrote in private, that is, concisely, precisely, and quite short on toleration of those whose reasoning powers were slower. When he served as a personal tutor of young minds he could be the sole arbiter and authority of their progress. But as a judge of his fellow citizens before the public and religious law, that “he approached . . . with reverence and reserve”,¹⁰ it seems that his severely correct temperament and the judgments he rendered began building up resentment among the financially and politically leading citizens of the province until this resentment reached a degree that became explosive. He was only a few short years into his career at Shiraz when abruptly he was removed from office, about the year 677/1278–79. His ouster from office proved such a family and personal embarrassment that he removed himself from Shiraz and traveled to Tabriz, the capital of the Ilkhan empire comprising Fars and other provinces.

Meanwhile, it appears that there was another family of the ‘ulama’ elite who rivaled the village “Baydawis” and wanted leadership in the province’s capital city. It may be speculated that on Baydawi’s exit from the scene, a young man named Fakhr al-Din Isma‘il al-Shirazi,¹¹ fifteen years of age and reputed to be a prodigious scholar,

¹⁰ Jalal al-Din ‘Abd al-Rahman, *op. cit.*, p. 145.

¹¹ Jalal al-Din ‘Abd al-Rahman [*op. cit.*, p. 181] gives a full form of the name,

had immediately been put forward from the midst of this family as candidate for the chief judgeship of Shiraz. The boy was quickly accepted by the governor of Fars, who no doubt saw the fledgling jurist as being more docile, patient, and gentle in dispensing public justice to his elders.

A date for this eventful change in the careers of the two rival judges has been reached by calculations from Fakhr al-Din Isma'il's death date of 756/1355, less his age of 94 at death, which give his birthdate as 662/1263–64; then by adding 15 years, his age at induction to office, the year 677/1278–79 is produced for this his first installation as chief judge of Shiraz.

After completing his move to Tabriz and having settled into his lodgings, 'Abd Allah Baydawi one day decided to attend that city's chief 'school' or lecture hall. Professor Edwin Calverley retells from Taj al-Din 'Abd al-Wahhab al-Subki's *Tabaqat al-Shaff'iyyah al-Kubra* [vol. 5, p. 59]¹² what happened.

He entered a school there and took one of the back seats because no one there knew him. The instructor put to those present a question which he said none of those present could solve or repeat. Then Baydawi started to answer. The instructor said, "I will not listen until I know that you understand the question". Al-Baydawi said, "You may choose whether I should repeat the question word for word, or give the sense of it". The teacher was surprised and said, "Repeat the question word for word". Then Baydawi repeated it and then gave the solution, and showed that the teacher had not stated the problem accurately. Then he confronted the instructor with a similar problem and requested him to solve it, but the instructor begged to be excused. The wazir [of the empire] happened to be present and called Baydawi to his side, and when he found out who he was, he had Baydawi restored to his position in Shiraz.

In widening circles among scholars of the East this incident was told and recorded about Baydawi, the brilliant but impatient and severely correct jurist theologian, who had been ousted from office by a local governor but then restored to it by the highest authority of the empire.

using both Fakhr al-Din al-Shirazi and Majd al-Din al-Shirazi al-Bali [the latter name from a village in Shiraz district].

Van Ess [op. cit., p. 269] reports the boy's name as "Magdaddin al-Fali."

¹² E.E. Calverley: "Al-Baydawi's Matali' al-anzar, a systematic theology of Islam", in *Muslim World* v. 53 (1963), p. 294.

When the imperial court in Tabriz restored Baydawi as Qadi al-Qudat of Shiraz, in about the year 680/1281,¹³ the judicial situation as it had been under him earlier lamentably began to repeat itself. Assuredly this time, Tabriz would have been fully informed of the hardship for the people and leaders of Fars through enduring 'the severity' of this chief justice. Baydawi's brilliance of mind was not questioned, but the rendering of his judgments had grated too sorely, and thus, his judicial career in Shiraz was brought to a full stop in 681/1282, only six months after his reinstatement.

And again Baydawi left the familiar city and traveled the miles north to the capital, Tabriz, an arena where he said he was determined to spend his time peacefully in ascetic living, religious meditation, teaching and writing. This trip in 681/1282 marks Baydawi's permanent move to Tabriz.¹⁴ And without delay, in Shiraz the youthful Fakhr al-Din Isma'il "al-Shirazi" was reinstalled as chief justice, and from then history records that he held office for seventy-five years.

The whole discouraging professional experience in Shiraz would have taken place during the reign of the son of Hulagu, Ilkhan Abaqa, during the years 663–680/1265–1282. And at the time of Baydawi's final trip to Tabriz, the new Ilkhan, Ahmad Takudar, would have just begun his reign, the dates of which are 680–83/1282–84.^{15,16}

In his al-Azhar University dissertation, Jalal al-Din 'Abd al-Rahman

¹³ Van Ess reports 680/1281 as the date calculated for Baydawi's restoration to the judgeship [op. cit., p. 265, n. 71].

¹⁴ This date of 681/1282 as part of the calculation is reported by Jalal al-Din 'Abd al-Rahman [op. cit., pp. 142–43], and by 'Ali al-Qarah Daghi [op. cit., p. 59, note 3].

J. van Ess [op. cit., p. 265, note 71] uses the same calculation but carries it only to Baydawi's reinstatement in 680/1281.

¹⁵ *A Middle East Studies Handbook*, by Jerre L. Bacharach. Seattle, Univ. of Washington Press, 1989, p. 41.

¹⁶ There is a story that on reaching Tabriz, Baydawi had sought out a sufi shaykh, one Muhammad al-Kutkhata'i [spelling is uncertain] [=? kedkhuda] who was a confidant of Ilkhan Ahmad Takudar. He is reported to have asked the shaykh to intercede for him in requesting the emperor's intervention in restoring him yet again to the chief judgeship of Shiraz. On the occasion of the shaykh's regular Friday night meeting with the Ilkhan the request was relayed in such a manner as to show the applicant's foolhardiness in persisting in this quest for high office. The shaykh told the Ilkhan that the man "wanted a small piece the size of a carpet from one of the quarters of Hell [Jahannam]", that is, he wanted "the judgeship over Fars province." The Ilkhan immediately agreed to the request, and was ready

states that none of the writers who mentioned Baydawi's life had reported any intellectual or publishing activity from his Shiraz years other than the fact that he had served as the chief judge there, and that it was only after his final move to Tabriz that he came to have a reputation as a writer.¹⁷ This observation bears weight in our outline of Baydawi's life.

Baydawi is most famous for his commentary on the Qur'an, *Anwar al-Tanzil wa-Asrar al-Ta'wil*. It is a thoroughgoing revision of Zamakhshari's commentary, *al-Kashshaf 'an Haqa'iq al-Tanzil*, done in order to replace that author's Mu'tazilite interpretations and to provide a more widely useful orthodox commentary with fuller annotations. Baydawi dedicated it to Ilkhan Arghun whose reign was 683-90/1284-91, probably completing it during that reign. Such a reference work would have tremendous value to the Ilkhan in governing and understanding a populace with a majority of Muslims. It would provide opportunities for its author to give private lessons to members of the court as well as lectures for the general public. It was the foundation of his scholarly reputation and so would have been the textbook for his teaching. Without any doubt he was keeping busy as his career in Tabriz got underway.

Other outstanding works of Baydawi, in addition to the *Anwar al-Tanzil*, include *Minhaj al-Wusul ila 'Ilm al-Usul* and a commentary to go with it, and *al-Ghayah al-Quswa fi Dirayat al-Fatwa* [?? = *Mukhtasar al-Wasil*], both the preceding titles being on Islamic law, then *Misbah al-Arwah*, as well as the compendium here translated to English, *Tawali' al-Anwar min Matali' al-Anzar*, both the preceding being on Islamic scholastic theology, and *Nizam al-Tavarikh*, on world history.¹⁸

to issue the order. When the shaykh reported to Baydawi just what he had told the Ilkhan, Baydawi was taken aback and seems to have been truly shocked into an objective comprehension of his real foolhardiness in continuing to apply for the office. He then withdrew his appeal, and remained with the shaykh in order to learn the way of mysticism.

This story is retold with slight variations in both the dissertations from al-Azhar University, and is attributed to the *Rawzat al-Jannat* by Muhammad Baqir al-Khvansari [1811-95], but it is fitted into the theory of the early date of Baydawi's death, 685/1286. Jalal al-Din 'Abd al-Rahman [op. cit., p. 180] cites the mention in the *Kashf al-Zuman* of Katib Celebi [= Hajji Khalfah] and Khvansari's *Rawzat al-Jannat* to the effect that Baydawi wrote his commentary on the Qur'an while working with Shaykh al-Kitkhata'i.

¹⁷ Jalal al-Din 'Abd al-Rahman, op. cit., pp. 157-158.

¹⁸ James Robson, article "al-Baydawi, 'Abd Allah ibn 'Umar", in *En-I-2*, v. 1.

In addition, he wrote a number of commentaries on the works of other writers in grammar, logic, and theology.

Both Jalal al-Din 'Abd al-Rahman and 'Ali al-Qarah Daghi mention the names of pupils who studied with Baydawi. 'Abd al-Rahman names two:¹⁹ Fakhr al-Din al-Jarbardi [= al-Chahar Barti] [664–746/1265–6—1345–6], and Zayn al-Din al-Habaki [= al-Hanaki], who was later the teacher of 'Adud al-Din al-Iji, famous for his authorship of *al-Mawaqif fi 'Ilm al-Kalam*. Qarah Daghi lists those two plus two others, namely, Kamal al-Din al-Maraghi [b. 643/1245–46], and 'Abd al-Rahman ibn Ahmad al-Isbahani, father and teacher of Mahmud ibn 'Abd al-Rahman al-Isfahani, the author of the commentary on Baydawi's *Tawali' al-Anwar* that is translated here together with its subject text. Qarah Daghi mentions that doubtless there were more:²⁰

It should be noted that if the early date [i.e., 685/1286] for Baydawi's death should be posited, and if his final trip to Tabriz should be set at 681/1282, then the space of four years allowable would seem to render it unlikely that he could have produced so many book titles, or earned the scholarly reputation that he had, or given adequate time for teaching of advanced students. And there is another factor bearing on the passage of time in this scholar's life in Tabriz, namely, the fact that the normal duration of the course of study for each of his pupils may with fair certainty be reckoned in years, rather than in 'quarters', 'semesters', or months.

An indication of Baydawi's gradual improvement in fortune is given by the discovery of a series of letters written by the wazir under Ghazan Khan and Uljaytu Khan [reigning respectively, 694–703/1295–1304 and 703–716/1304–1316], namely, the historian Rashid al-Din Tabib, to his son, Amir 'Ali, who was the Ilkhans' governor in Baghdad. These letters are believed to have been written about 703/1303 or perhaps as late as 712/1312–13, during or just after a war between the Ilkhanids and the Mamluks in Syria. In one of the letters Rashid al-Din gives a list of citizens honored by the Ilkhan, among whom is mentioned Baydawi as bearing the title "Qadi" [he alone in the list being so titled] and as having received an imperial gift that included 2000 dinars, a sable fur, and

¹⁹ Op. cit., pp. 185–188.

²⁰ Op. cit., pp. 65–68.

a mount and saddle.²¹ It is possible that Baydawi was not only honored as 'qadi' by tradition, but that he was also recognized by the Ilkhan's court in a new role of chief qadi of the Shafi'ite school of Islamic law.²²

The tranquillity of the Ilkhan empire was so only in a relative sense. Ghazan Khan had become a Sunnite Muslim as a formal step of religious loyalty. Various reforms in his administration were begun, and the construction of public buildings increased. However, the inconclusive war against the Mamluks and the threat of more war coming from a major division of the Mongols in the north forced the Ilkhan to build up his empire's defenses. Although the Ilkhan gave the Shi'ite minority advantages and money for their institutions and building projects they were still dissatisfied with his religious stance.

In about 705/1305 a leading Shi'ite scholar moved to Tabriz, namely, Jamal al-Din al-Hasan ibn Yusuf Ibn al-Mutahhar al-Hilli, known as "Allamah Hilli" [648-726/1250-1325]. In the public discussions and debates on matters of Islamic faith and on the dispute between Shi'ites and Sunnites as to who should have been the rightful leader of Islam after the Prophet Muhammad, Ibn al-Mutahhar al-Hilli soon became active as a Shi'ite spokesman, while 'Abdallah al-Baydawi was an outstanding scholar and speaker for the Sunnite majority. Both were highly intelligent and both keenly appreciated these opportunities for presenting their positive reasons and mutual objections and for constructing arguments and counter-arguments that could stand in the minds of attentive hearers.

'Allamah Hilli abridged Nasir al-Din Tusi's handbook on Islamic religious practice, *Misbah al-Mutahajjid* and organized it into ten chapters. Then he supplied his own composition which he called, *al-Bab al-Hadi 'Ashar*, [*The Eleventh Chapter*],²³ containing the teaching about God and His attributes, then Prophecy, the Chosen Leader [Imam]

²¹ D.O. Morgan, in his article, "Rashid al-Din Tabib", [En-I-2, v. 8, p. 443] states that this collection of letters is "generally regarded as a spurious compilation, perhaps of the Timurid period." J. van Ess, op. cit., pp. 266-267, mentions the doubts of other scholars as to the reliability of these letters, but accepts a counterargument against the doubts and is favorably inclined himself as to their historical value.

²² Cf. E. Tyan's article "Qadi", En-I-2 v. 4, pp. 373-374, esp. p. 374.

²³ Translated from Arabic and published by William M. Miller, London: Royal Asiatic Society, Luzac Distr., 1928 (reprint 1958).

of the nation, and the Hereafter. We note that the 'Allamah begins by speaking about the obligation [wājib] that is divinely placed on believers in Islam to know and obey God, the Necessary Existent [wājib al-wujūd], and other foundational teachings of Islam.

Ghazan Khan's hopes for reorganizing his empire ended when he died at the age of 31 in 703/1304. His brother Uljaytu succeeded him, intending to continue his brother's plans. He had become a Sunnite Muslim along with his brother, and sometime during the first years of his reign he had tightened his control of the Sunnite community by combining two of their schools of Islamic law into one for administrative purposes. However, in 710/1310 he was won over to the Shi'ite cause²⁴ when Ibn al-Mutahhar al-Hilli issued a fatwa in his favor that abolished a troublesome divorce.²⁵

This major shift in the ruler's religious loyalty changed the balance of power in the Islamic community, and gradually put Sunnites on the defensive. For the next several years, tensions increased within the Persian populace and especially between the two large Islamic divisions. Baydawi deeply sensed the immediate and long term implications of this change. With reference to the succession of Islamic leadership after the Prophet Muhammad, he was convinced that the Shi'ite position contravened the facts of history. This basic deviance in the conception of historical fact he felt was also a denial of much that Sunnite Islam stood for. With an educated and cultured spokesman like Ibn al-Mutahhar al-Hilli, he would have been pleased and stimulated to continue discussion and debate over these matters. But the politico/religious atmosphere was radically changed, and the future seemed headed for an unthinkable tragedy.

Shi'ite citizens had been increasing in numbers in Persia, and now they were favored over the Sunnites on every occasion. Uljaytu was even persuaded to engrave on his coins the Shi'ite slogan, "Ali is the viceroy of God." Bertold Spuler relates further in his survey of this history that Uljaytu persecuted the Sunnites so severely that "civil strife seemed bound to break out."²⁶

During this tense period Uljaytu died in 717/1317, and his death was attributed to poisoning. Shortly afterwards in 718/1318 under

²⁴ B. Spuler, *The Muslim World, a Historical Survey, Part 2, The Mongol Period*, pp. 38-39. Leiden: E.J. Brill, 1960.

²⁵ Jalal al-Din 'Abd al-Rahman, *op. cit.*, p. 183.

²⁶ B. Spuler, *op. cit.*, p. 39.

the next Ilkhan, Abu Sa'îd son of Uljaytu, the historian Rashid al-Din Tabib, one of the two co-wazirs of the empire who had been struggling for supremacy at the second echelon of government, was accused by his opponent, Wazir Taj al-Din 'Alî, of having poisoned Ilkhan Uljaytu. And because his co-wazir accuser was temporarily too strong, no adequate defense could be made, so Rashid al-Din and his son Ibrahim were executed and their family property seized by the government. But history records a sort of vindication some years later when Ghiyath al-Din, another son of Rashid al-Din Tabib, was made wazir, the empire being still under Ilkhan Abu Sa'îd.²⁷

In the years after 710/1310 when Shi'ism had begun to modify the internal actions and attitudes of the government toward its non-Shi'ite citizens, for Baydawi there was no longer any satisfaction in public activity. As a Sunnite speaker attempting to address a changed and predominantly hostile public atmosphere, doubtless he would no longer have received the customary courteous and fair hearing by the crowd of listeners in the religious debates and discussions. His formerly attentive students excused themselves and disappeared from his company. Calumny in private gossip easily could have been splashed over his reputation.

Thus, his early determination to live an ascetic life of meditation and study would have prevailed in his daily plans. It was clearly better for him to keep "a low profile" and avoid trouble as much as possible. This principle he observed well until he was overtaken by death in 716/1316, the date given by Hamd Allah Mustawfi al-Qazvini [d. after 740/1339-40] as recorded in his *Ta'rikh-i Guzida*.²⁸

As Baydawi's name for long had not been heard either in gossip or in news reports, it has seemed to historians ever since that time that his last days are faded in the distance. This is a lapse of historiography, as no consideration has been given by any biographer nor has speculation been made regarding the relevant general fact of an aged and discouraged person's deteriorating physical and mental powers and how this fact would bear upon the continuance of regular daily communication between the outside world and such an

²⁷ D.O. Morgan, in his article, "Rashid al-Din Tabib" [En-I-2, v. 8, p. 443].

²⁸ Quoting Bertold Spuler regarding this history, "[It] (completed 730/1330) . . . contains a quantity of useful information about the author's times which is not to be found elsewhere, so that it is indispensable as a source for the later Ilkhan period . . ." B. Spuler, article "Hamd Allah . . . al-Mustawfi al-Qazwini" in En-I-2, v. 3, p. 122.

individual. So to Baydawi, as to everyone, gradually there did come the time of a parting along the unseen abscission line between body and intelligent soul. In this case of Qadi 'Abd Allah Baydawi, as in many a noteworthy case, memories of his words and copies of his writings continue to reward study and to stimulate comprehension, both in scholars' cells and in high offices of government.

A BIOGRAPHICAL NOTE ON MAHMUD IBN 'ABD AL-RAHMAN AL-ISFAHANI

Shams al-Din Mahmud ibn 'Abd al-Rahman al-Isfahani, author of this translated commentary on Baydawi's *Tawali' al-Anwar*, was born in 674/1276 in Isfahan.²⁹ His home was one where scholarship in general religious studies was honored and pursued by his father, 'Abd al-Rahman ibn Ahmad al-Isfahani. Mahmud aptly and heartily followed this example of motivation. A brief outline of the life of Isfahani, Baydawi's commentator, is supplied by Ibn Hajar al-'Asqalani [773–852/1372–1449], writing in his biographical dictionary of notables who died in the 8th/14th century, *al-Durar al-Kaminah fi A'yan al-Mi'ah al-Thaminah*, entry #4752. We shall follow this outline and suggest a partially filled in picture of his life and contribution, where possible correlating this with the time-frame of Baydawi's career.

Mahmud's father, 'Abd al-Rahman ibn Ahmad Isfahani, was one of the four students of Baydawi whose names have been gathered from various sources.³⁰ No date for his course of study with Baydawi has been found, but we shall take it to have been sometime during what we assume would be his most productive years at Tabriz, between 681/1282 and on up to 710/1310, when the Ilkhan Persian empire officially became a Shi'ite state. Let us add to our assumptions the fact that 'Abd al-Rahman would have moved his family to Tabriz while he studied there. That more distant capital city, plus Baydawi's rising fame somewhat later than 681/1282, would have had more attraction as a study center than Shiraz would have had earlier than 681/1282, even though the latter was closer to their

²⁹ In Arabic the city's name has been traditionally spelled with a "b" instead of an "f", but in Persian it is "f". This carries over into the usages with personal names.

³⁰ Qarah Daghi, 'Ali Muhyi al-Din, op. cit., pp. 65–68. See also the list in the biographical note on Baydawi, p. xxxiv above.

home in Isfahan, since Baydawi earlier would have been less known as a scholar.

Mahmud would have been 7 years of age in 681/1282, and 36 years of age in 710/1310. Ibn Hajar says only that he “worked” in his home town [i.e., either as apprentice in a skilled trade, or as a ‘pre-professional’ student], becoming skilled and advancing in the various “arts and sciences”, and that he studied under his father and another shaykh, one Jamal al-Din ibn Abi al-Raja’.

When ‘Abd al-Rahman moved his family to Tabriz and began his course of study under Baydawi, it may be that Mahmud was still living with his parents while bringing in wages from his work. To speculate, if Mahmud accompanied his parents, he might reasonably have been near the age of twenty, reaching this age in 694/1294–5. By that time Baydawi’s career at Tabriz could have reached its highest level, his fame attracting students from cities in every direction.

The situation then would have been ideal for Mahmud to attend along with his father, and thus earn for himself a ‘subject teaching license’ [ijāzah]. This practice by students of bringing a child or youthful son along to hear the lectures and thus gain academic credit is known to have become a “routine” phenomenon in Islamic education by the time Ibn Hajar al-‘Asqalani was writing in the mid-8th/14th century.³¹

Of course, this is only speculation regarding Mahmud, as one would expect him at least to mention such an experience in his writings, and if later he had become proficient as a scholar, then his biographical notice in Ibn Hajar’s *al-Durar al-Kaminah* would have mentioned it also. But the lack of any such mention does not demonstrate in itself that he did not sit in his father’s shadow at Baydawi’s lectures. At any rate, therefore, whether as a direct or indirect hearer of the famous scholar, Mahmud is no more than ‘once removed’ from him. Especially since his father was the intermediary, Mahmud’s insight into Baydawi’s mind and work was deeply appreciative of that teacher.

To digress briefly, the same ‘once removed’ degree of separation from Baydawi the teacher holds also in the case of ‘Adud al-Din ‘Abd al-Rahman ibn Ahmad al-Iji, his intermediary being his tutor

³¹ Jonathan Berkey, *The Transmission of Knowledge in Medieval Cairo, a Social History of Islamic Education*. Princeton University Press, 1992, p. 32.

shaykh, one Zayn al-Din al-Hanaki [or, al-Habaki]. However, al-Ijī's summary work on Islamic theology, *al-Mawaqif fi 'Ilm al-Kalam*, is neither presented or known as a commentary on Baydawi's book of natural and revealed theology, but rather as an original work. It is evident that medieval Islamic scholars observed some of the same general patterns in the organization of their topics. We have made a brief study of the organization of Ijī's book along with a comparison of it to the Baydawi text with its Isfahani commentary.³²

When his family eventually returned to Isfahan, Mahmud would have begun his teaching career which would build up gradually as he matured through his own reading and learning. His pupils probably included both primary and secondary students, as classes and as individuals, and from among them he could choose those who were more advanced.

His was an orthodox Sunnite Muslim family, and when Ilkhanid Persia became a Shi'ite state in 710/1310 under Ilkhan Uljaytu [703-17/1304-17], Mahmud Isfahani would have felt the same discouraging effect upon his scholarly enthusiasm at the age of 36 that Baydawi was feeling very keenly as an elderly man. In addition to the religious situation, the Ilkhan Abu Sa'id [717-36/1317-35] seemed both weak and untrustworthy. He had allowed the famous wazir-

³² There is a close similarity in organization between Isfahani's commentary taken together with Baydawi's *Tawālīf al-Anwār* and Ijī's *Mawaqif*. Please note the two tables of contents: Baydawi has six main divisions, using standard 'book' terms for the divisions. Ijī has six main divisions, using a geographical metaphor of 'Stations on a Route of Exploration in Theological Knowledge'.

BAYDAWI

- [1.] Introduction: Studies
in logical reasoning.
- BOOK 1: Realities Possible:
- [2.] Section 1: Universals
- [3.] Section 2: Accidents
 Ch. 1, General
 Ch. 2, Quantity
 Ch. 3, Quality
- [4.] Section 3: Substances
- [5.] BOOK 2: Realities Divine
 (Dogmatic theology)
- [6.] BOOK 3: Realities Prophetic
 (Prophecy, Imamate,
 Practical theology,
 Last Day)

IJĪ

- 1st Station:* Basic items of knowledge
and learning.
- 2nd Station:* "Matters
of general reference"
- 3rd Station:* Accidents
 Obser. Pt. 1: General
 Obser. Pt. 2: Quantity
 Obser. Pt. 3: Quality
- 4th Station:* Substances
- 5th Station:* Things divine
 (Dogmatic theology)
- 6th Station:* Matters of tradition
 (Prophecy, Imamate,
 Practical theology,
 Last Day)

historian, Rashid al-Din Tabib, and his eldest son to be executed because of a rival's spite in 718/1318, but later he had raised the dead wazir's younger son, Ghiyath al-Din, to the same post his father had held, perhaps as some kind of an apology to the family.

The next mention of Mahmud Isfahani in Ibn Hajar al-'Asqalani's brief obituary notice of him is that he went on the pilgrimage to Makka at the end of 724/1324. He was then 50 years of age. Thus, we realize that fourteen years under increasing Shi'ite control over the country's internal civilization is a long time for him to have endured the change from being in a majority Sunnite position to being of a second-class minority.

The following month, at the turn of the year 725/1325, it is apparent that he did not return to Isfahan, but instead, he traveled to Jerusalem, as Ibn Hajar mentions. His pilgrimage to Makka and his visit to Jerusalem as the next most holy place of Islam helped to restore his religious perspective and revived his confidence in his profession. Being a Sunnite Muslim, he felt an inward guidance to emigrate permanently from the Shi'ite Ilkhanid region that was his home to the territory of the Mamluk empire comprising Egypt, Palestine and Syria. This empire was a strong Sunnite state, so he was soon headed for Damascus, arriving there in Safar, the second month of the new year, his age being 51.

In the city at various lecture halls, and especially in the great Umayyad Mosque, wherever public discussion groups met regularly, there Mahmud al-Isfahani made himself at home, participating with all his old enthusiasm for things intellectual and religious. Ibn Hajar al-'Asqalani picks up a semi-legendary moment in Mahmud's life, when he quotes a sharply observant old Shaykh Ibn Taymiyah [661-728/1263-1328], the Hanbalite judge and theologian, as scolding a talkative group at a public discussion, "Be quiet now all of you, so that we can hear what this noble fellow has to say. No one like him has ever come here". [*al-Durar al-Kaminah*, 1966, p. 95.]

Thus it was for seven happy years Mahmud spent his days and evenings at the Umayyad Mosque intently poring over his reading or patiently helping groups of students with their difficult reading assignments. When it was his turn to lead a public discussion people would be left full of praise for him.

One day in late spring, in the month Rabi' II of the year 732/1332, Mahmud being 58 years old, an important letter of invitation to membership came to him by post from the Cairo office of Shaykh

Majd al-Din al-Aqsara'i, supervising shaykh of the famous Nasiriyah khanqah in Siryaqus, then a northern residential suburb of Cairo. Built and fostered by the reigning Mamluk king, al-Malik al-Nasir Muhammad, this khanqah [or, khanaqah] was an outstanding example of the retreat and study centers in Cairo, originally for Sufis and later accepting religious academics, that provided a room, meals, worship and study facilities and a common library, plus regular scholarships or stipends for budding or established scholars. The khanqahs brought honor and prestige upon their builders, their supervising shaykhs, and all who resided within.³³

Then, in short order, Mahmud ibn 'Abd al-Rahman Isfahani gave his hearty and obedient response to the sender of this letter by traveling to Cairo, alighting from his mount at the khanqah, and by taking up his lodgings there [fa-nazala 'indahu]. And there he was graciously welcomed by Shaykh Majd al-Din al-Aqsara'i and soon introduced to the residential fellows and the leading patrons of the khanqah in a general convocation, this without doubt becoming a 'lecture series' by general acclaim [wa-'umila lahu samā'].

The chief fostering patron of the Siryaqus khanqah was the king, al-Malik al-Nasir Muhammad ibn Qalawun, now a mature leader in his third and finally secured reign [709-41/1309-40], having been installed and removed twice before [693-94, and 698-708], fortunately without injury.³⁴ He was ten years younger than Isfahani, and there is no doubt that this monarch warmly agreed with the supervising shaykh in appreciating the newly arrived scholar's gifts. Listening to Mahmud Isfahani's expositions of the Qur'an and to his discussions of the teachings and semi-philosophical debates of the Mutakallimun, the king felt his own need for a better comprehension of the religious foundation of Islamic civilization. Isfahani spoke often of a great Sunnite teacher, 'Abd Allah ibn 'Umar Baydawi, who had lived in recent years in the Ilkhanid empire when it had been a Sunnite land. Al-Malik al-Nasir Muhammad even could have possessed a copy of Baydawi's theological summary, *Tawālī' al-Anwar min Matalī' al-Anzar*. But then, it was steep and heavy reading, even

³³ See Jonathan Berkey, op. cit., pp. 56-60, "Sufi Convents as Centers of Education", and J. Chabbi's article "Khānqah" in En-I-2, v. 4, pp. 1025-26, for gradual changes in the function of the khanqahs.

³⁴ See Peter M. Holt's article, "Al-Nasir", 1. Al-Nasir Muhammad ibn Qalawun, 684-741/1285-1341, in En-I-2, v. 7, pp. 991-992.

for well educated royalty. As had the earlier Ilkhans, this Mamluk king sensed that behind the difficult sentences there was a religious scholar of forthright logical clarity and positive, serious judgment, with strength of conviction and knowledge, qualities the Ilkhans and their counterparts, the Mamluks, wanted to see in their legal consultants. Al-Nasir Muhammad saw these qualities in Mahmud Isfahani, but in a more fluent and genial style than in Baydawi.

Therefore, al-Nasir Muhammad proposed to Isfahani, and indeed, commissioned him to write out a full commentary on Baydawi's *Tawalīf al-Anwar*. This would be as a service both to him as king, and to all readers of religious and scholarly purpose. A sizeable reward in cash, property, office, or all of these, was always understood as part of a commission, and this also depended on the king's satisfaction with the end product.

Residence at the Siryāqus khanqah of course provided all the continuing needs of a scholar. Therefore, Isfahani set to work on the commentary that was commissioned probably sometime not long after becoming acquainted with al-Malik al-Nasir Muhammad in 732/1332. The king was then in the final third of his last reign, being destined to live nine more years until 741/1340. These two dates may then be set as the extreme limits for the possible beginning and ending of Isfahani's work on this book.

Others of the leading Mamluk princes also had found Isfahani to be an appealing and convincing teacher. Few if any of them came from native Egyptian families, so their social class had no difficulty in accepting a foreign scholar's contribution.³⁵ Prince Qawsun al-Saqi, who had the high office of royal 'cupbearer',³⁶ and kept this title, "al-Saqi", adding it to his personal name, was able to convince Shaykh Mahmud Isfahani to accept the honor of being named the supervising shaykh of a new khanqah that the prince was building. The deal offered to Isfahani would have included a higher stipend and more comfortable lodgings as the supervising shaykh, a first-class library of manuscript titles to be commissioned from the best scribes, plus the all-important freedom of setting his own schedule of hours for individual work and for public discussion. He did not

³⁵ Carl Petry, *The Civilian Elite of Cairo in the Later Middle Ages*, Princeton University Press, 1981, Ch. 2, "Geographic origins of the civilian elite", esp. pp. 61-68, 77-81.

³⁶ P.M. Holt, *op. cit.*, p. 992.

refuse this fine offer, but continued without interruption in his own royally commissioned task.

Before he emigrated to Egypt Mahmud Isfahani had produced his own works or commentaries on the works of other writers in the fields of literary criticism, poetics, dialectical theology, and logic. In Cairo his written production ultimately included a commentary on Ibn al-Sa'ati's literary work *al-Badi'*, commentaries on two works of Baydawi, the *Tawali'* *al-Anwar* and the *Minhaj al-Wusul*, and his *Tafsir*, an interpretation of the Qur'an.

Colleagues and friends told of their amazed observations of him while at work, whether in Isfahan, Damascus or Cairo. Ibn Hajar al-'Asqalani relates one vignette, that he avoided eating very much in the evening, for that would make him need to drink liquids, and that would make him need to find a piece of vacant land whereon to relieve himself, and therefore precious writing time would be lost to him. Friends remembered how firm his handwriting was and how quickly his pen flew along. And it seemed that any time some interruption came into the workings of his mind when he was involved either in conceptual thought or in problems of knowledge it was like an affliction to him. Ibn Hajar goes on to quote the historian Khalil ibn Aybak al-Safadi [d. 1362] as saying, "I saw him [in Cairo] when he was writing his commentary [[*tafsir*] on the Qur'an], he was working directly from his mind and memory without any review [of his source materials]; and people have found [this work] to be greatly useful."

Isfahani's move away from the Siryaqus khanqah, called the Nasiriyah after the king who built it, to another where he, Isfahani, was the supervising shaykh and chief scholarly ornament, was only a small irritation to the king. Likewise, Prince Qawsun's success in luring Shaykh Isfahani away from his first lodgings to newer ones with a grander title amounted to nothing more than the prince's usual activity in a court full of others like him constantly jostling and scheming for advancement in prestige, an activity that corresponded to the bustling hubbub in a busy market place, nothing to cause worry.

When Shaykh Isfahani finally announced that he had completed his commentary on Baydawi's *Tawali' al-Anwar min Matali' al-Anzar*, royal and religious and scholarly personages all welcomed and praised the work. Readings were scheduled, manuscript copies were commissioned, and the king presented the author a friendly and gener-

ous reward for the long task now completed. Of the place of Baydawi's *Tawālīf al-Anwār* in the later esteem of Muslims, Jalal al-Din 'Abd al-Rahman, in his University of al-Azhar dissertation on Baydawi³⁷ quotes Taj al-Din 'Abd al-Wahhab al-Subki [d. 1370], who wrote in his biography of Shafi'i notables, *Tabaqat al-Shafi'iyyah al-Kubra*, "[Baydawi's *Tawālīf al-Anwār*] is the most outstanding compendium that has ever been written in the science of [Islamic] theological statement." Furthermore, Jalal al-Din 'Abd al-Rahman goes on to say that of all the commentaries on Baydawi's *Tawālīf al-Anwār* the most helpful and useful one is that by the great Doctor, Shaykh Shams al-Din [Mahmud ibn 'Abd al-Rahman] al-Isfahani.³⁸

For Mahmud Isfahani from then on no major changes were reported in his location, his reputation, or his work. He continued to debate and to discuss interesting philosophical and religious problems with other scholars and with the public, and he continued to teach his students and to write, although he had considerably slowed up in the latter activity. His friend the king died in 741/1340, and was succeeded by no less than seven short-lived reigns in the eight years following. Ibn Hajar al-'Asqalani says that Isfahani died in Dhu al-Qa'dah 749/1348, this being in the Second Pandemic of the bubonic plague.³⁹ At the age of 75 years, his successful career in scholarship as both teacher and writer was brought to an end. One may imagine that he found eminent satisfaction in his life among colleagues, friends and students. And without doubt, he remains an outstanding citizen of his world and an interesting person with whom to study and reflect.

³⁷ *al-Qadi Nasir al-Din al-Baydawi wa-Atharuhu fi Usul al-Fiqh*, p. 201.

³⁸ 'Abd al-Rahman, *op. cit.*, p. 205.

³⁹ Ibn Hajar al-'Asqalani, *al-Durar al-Kaminah*, 1966, p. 95. See also "Fleas: the Lethal Leapers", by Nicole Duplaix, *National Geographic Magazine*, May, 1988, pp. 675 ff.

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THE TRANSLATION

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ISFAHANI'S FOREWORD TO HIS COMMENTARY,
Matali' al-Anzar, Sharh L 2, T 2, MS 3b

In the Name of God, the Merciful Lord of Mercy, [we do this].¹

Praise be to God, For He it is alone
Who singularly lives in the obligation of His presence
 and the perpetuity of His abiding,²
Who stands alone in prevention of His nonexistence
 and the impossibility of His passing.
Demonstrating His existing presence
 is the created earth and soaring heavens;
Witnessing to His singular incomparability
 is the banishment of corruption from earth and sky.
He surpasses far any matching to likes or peers.
He is holy, high
 beyond temporal origination or analytical division,
 beyond compounding or partition.
Comprehended by His knowledge
 is the careful creeping of a black ant
 on massive rock in glooms of the dark.

¹ This invocation, the "basmala" [bi-ism Allāh al-Rahmān al-Rahīm], is given here as preface to the entire double book that follows [i.e., both text and commentary], not being repeated at the beginning of Baydawi's text. In it we follow Kenneth Cragg's translation. [We add the bracketed phrase as being implicit in whatever context the basmala is used.]

² Isfahani's incipit: [al-Ḥamdu lil-Lāh al-ladhī tawahhada bi-wujūb al-wujūd wa-dawām al-baqā']. These lines of preamble clearly echo Baydawi's previously written incipit and preamble. Regarding the phrase, [wājib al-wujūd] or, [wujūb al-wujūd], or abbreviated to [al-wājib], a shift in connotation is apparent between the aspect of 'egocentric' philosophical reasoning and the aspect of 'theocentric' religious attention. In the zone of philosophical reasoning, the Prime Mover is ultimately declared to be the 'Necessary Existent', or, 'the Necessarily Existent One', i.e., that Being who is necessary to sustain the existence of the philosopher and his universe. Thus, God may be considered as having necessary existence; but any notion of the eternal God as 'being under obligation' is expressly rejected by Baydawi and his colleagues. However, moving into the zone of religious attention and expression, the presence of the Transcendent One is intuitively and immediately recognized as the source of an obligation within which all other existents stand in relation to the One. The two aspects of this necessity/obligation are always present. Note 'Allamah Hilli's comparable teaching mentioned in Baydawi's biographical note [p. xxxvi].

God has introduced every thing by His autonomous power,³
 [power] eternal and refraining from ceasing;
 Unto Him [all things have their] return,
 By Him [all things have their] beginning.⁴
 He has made arrangement for all things that are
 by His particularizing command,
 That follows His primeval decision.⁵
 Fallen down short of perceiving⁶ His essence⁷
 are the meditations of great sages,
 Wandering lost in the great wilderness of His divinity
 are the logical reasonings⁸ of wise scholars.

³ The 'power of autonomous action and causation', a concept well reformulated by R.M. Frank in his *Beings and Their Attributes*.

⁴ See the articles "al-Ma'ād", by R. Arnaldez and "al-Ibdā'", by L. Gardet, in the En-I-2. The latter article carefully distinguishes between [ibdā'] and [ibdā'].

⁵ [... *bi-qadarīhi* alladhī huwa tālī sābiq *al-qaḍā'*]. These two decisions of God are linked together implicitly if not in clear statement. Their order of sequence is presented here.

⁶ [idrāk] is used for both sensate and beyond sensate perception in Arabic, and thus we believe it reasonably may be translated as perception in both cases. The term apprehension has come to introduce a distortingly large connotative component of fear into the act of perception, in our judgment.

⁷ [dhāt] essence. Fazlur Rahman points out, "In Muslim philosophy this term [dhāt] is used in several senses: 1) thing, 2) self, 3) substance; 4) essence: ... the essential or constitutive qualities of a thing as a member of a species, ... contrasted with its accidental attributes. In this sense it is the equivalent of [māhīyah]." "Both these meanings of [dhāt] as essence and substance, however, are combined and often confused ... by Aristotle and his followers." [From F. Rahman's article "[dhāt]" in En-I-2.]

We shall follow the usual translations of [dhāt] and [māhīyah] which are by the terms "essence" and "quiddity", respectively. The meanings overlap and thus will continue to generate confusion, especially for students beginning in philosophy. A brief review of the terms for each of these two concepts will show the close overlap in their meanings and the distinctive emphasis of each, even though our definitions are simplified: [dhāt] is an essence itself in real existence; and [māhīyah] is an essence in the abstract as constituted in its whatness by its ingredients. This distinction may help to avoid some difficulties. As terminology that we hope would be clarifying we propose the future use of "*real-essence*" for [dhāt], and "*quid-essence*" for [māhīyah].

⁸ [anzār] plural of [naẓar]. As a noun we identify it with the 'speculative thought' carefully done and well tested that is necessary to be accepted as certainty beyond mere theory. The predominant and near total use of this term in our translation will be as 'logical reasoning'.

Baydawī presents sound logical reasoning as the most careful and most useful kind of intellectual activity. More often than by a full syllogism, logical reasoning

Benediction and peace be on creation's best, Muhammad,
 Whom He sent out to all peoples of a world created,
 Whom He chose for quelling error
 and for lifting up a standard to guide one's way,
 To whom He promised the place of interceding
 on the Day of Showing and Recompense;
 And also on his Family, righteous and serene,
 And on his Companions, all noble and pious.

Now as to the subject matter that follows:

Masters of the intellect agree together, and the wardens of tradition give their assent, in that the worthiest matter to which mass ardor may strive, and the greatest thing for which nobility in mankind may compete is systematic knowledge, for it is animation to the heart, that L 3 chief of our members, and it is soundness to the intellect, that most powerful of all things.

For this reason God Most High commended systematic knowledge and its human community in many places in the Noble Qur'an. God Most High has said:

"Those who advance systematic knowledge God will advance by several ranks;" [Qur'an 58:11] and

"Is the balance equal [between] those who do have knowledge and those who do not have knowledge?" [Q 39:9] and

"God has confirmed that there is no deity at all except Himself, while angels and the friends of knowledge do maintain justice." [Q 3:18]

The greatest and highest kinds of knowledge, the most perfect and beneficial among the areas of experiential knowledge, are the divine sciences of [our] revelation and the particularities of [our] religion, MS 4a since by them there is ordered well-being for all who worship, and there is awarded the bounty of salvation at the Restoration.⁹ Fruits of many intellects in their varieties are there in harvest, precious

accepts the perceived data of both intuition and reason, and constantly is checking and adjusting back and forth, alternating between a) the clarifying 'process of conceiving' meanings and reality [al-taṣawwur], and b) the 'assenting judgment' to each step in the improving focus of a conception of some entity [al-taṣḍīq].

⁹ [al-ma'ād], another term for the Day of Resurrection. It is God's prerogative to restore all things for close review and recompense.

and rare things of every kind are there to captivate. He who is adorned with these thereby wins the uplifted arrow prize;¹⁰ whoever withdraws from these [divine sciences] will [indeed] join the vast assembly on Resurrection Day, but, as unseeing.

[In this category of the divine sciences there is one that has no peer at all], the systematic knowledge of the fundamental principles of [our] religion [that is specifically, the 'science of theological statement'].¹¹ This is the grandest of them all in subject, noblest of them in elements and corollaries, firmest of them in foundational supports and most obvious of them in proof. As both an edifice about the pillars of the religious law and as a foundation for them, as chief and foremost among landmarks of our religion, and as opener of the curtains of divinity, and giver of access to the secrets of lordship, [this systematic knowledge] serves to divide between the chosen righteous and the abandoned wicked, and to differentiate the obedient, a populace whose destiny is divine forgiveness T 3 and good pleasure, from the disobedient, a populace whose destiny is error and terror.

Writing on this subject, outstanding authors of all times and excellent scholars in all eras and periods have produced noble volumes and polished compendiums, they have striven to delineate ultimate concepts, state fundamental truths, disclose unique treasures and record useful lessons. On behalf of us all, may God reward them abundantly.

However, the book [entitled] *Rays of Dawnlight Outstreaming*¹²—a very learned work by that wise and careful leader, chief of cadis and

¹⁰ [fāza bi-al-qidh al-mu'alla'] i.e., wins the priority in allotments, preeminence in counsel; derived from the ancient Arabian game [maysir] where the winner gets the seventh of the divining arrows. [Hans Wehr, *Dictionary of Modern Written Arabic*.]

¹¹ In view of the need for a more lucid conception the following is now suggested as a translation for [ilm al-kalām]: 'the science of theological statement'. It will be used sometimes, as here, as a specific alternate for "the systematic knowledge of the fundamental principles of our religion." See the note ahead coming under point 5 of Baydawi's discussion of the functions of this science.

¹² Full title: [Tawālī' al-anwār min maṭālī' al-anzār], the second half of Baydawi's title being taken as the first half of the commentary's title. The suggested translation for the two titles illustrates their difference in perspective that hinges on the word [maṭālī']:

Baydawi—*Rays of Dawnlight Outstreaming from FAR HORIZONS of Logical Reasoning*.

Isfahani—*HIGH VISTAS of Logical Reasoning, a Commentary on "Rays of Dawnlight Outstreaming."*

civil governors, an exemplary investigator, model of precision and finest [scholar] of modern times, Imam to Islam and all Muslims, 'Abd Allah al-Baydawi, God make his spirit venerable and his tomb radiant—[this title] stands out from among these [other books] for its inclusion of the finest products of reason and the choicest selections of tradition.

It has reviewed our religion's sources,¹³ distilled its major sections, summarized its governing laws, verified its logical demonstrations, untangled its problems and clarified its enigmas. And, as [the author] himself says, along with its being concise and easy to remember, it embraces concepts that come from many disciplines, although they stand close together in many of their aspects, its foundation principles and main topics are well marked and its natural [subject] groupings and transitions are well arranged.

In light of this, a person whom I would not withstand L 4 and with whom I can only agree has requested me to write out for him a commentary MS 4b that would not only delineate [the book's] ultimate meanings, state its fundamental truths, disclose its unique treasures and record its useful lessons, but also would present systematically its general concepts, perfect the articulation points within them, open up its problem areas and explicate its enigmas. So I undertook to fulfill the requirements he set me, and I have loosened up the author's tightly locked ambiguities of expression and have endeavored both to make clear what he means to say and to particularize his [general] formulations. I have named this [book of mine], *High Vistas of Logical Reasoning, a Commentary Upon "Rays of Dawnlight Outstreaming."*¹⁴ Moreover, I have inscribed it in the name of one who is plainly free of the unattractive traces of bad habits and is fully endowed in winsome qualities of a fine character, one who is a flowing spring of generosity and good deeds endorsed by the support of the merciful Lord, a person in whom are centered qualities suiting the most noble and exalted, lordly and princely, great, splendid and masterful. This man is actively guardian of the borders and coastlines, divinely aided and victorious, Chief of the Reserve Forces and Commander of the Armed Forces, Chief Cupbearer

¹³ MS gl: Lc., [our] religion's sources.

¹⁴ [Maṭālib al-Anzār, Sharḥ Ṭawālī al-Anwār.]

among royal conquerors;¹⁵ may God celebrate¹⁶ strength in the struggle for God and in hard work.

He has established justice and benevolence, and he protects the people of religion and faith. He is our Sultan Most Great—who holds by the neck all foreign kings, being [himself] King over all kings of the Arabs and the non-Arab East, a fair minded master, a hard working guardian of our borders and coasts, triumphant over enemies and made victorious by heaven, a conqueror in the world and in our religion, Sultan of Islam and all Muslims, reviver of justice in all worlds, a guarantor of equity for the oppressed versus wrongdoers, a preceptor of faith for the pious, a negotiator of agreement among believers—Abu al-Ma‘ali Muhammad,¹⁷ the son of our Lord and Sultan Most Great, al-Malik al-Mansur Sayf al-Din Abu al-Fath Qalawun.¹⁸

May God extend this man's sovereignty over the people of the [Islamic] community for a protecting shade. May God expand their community by the blade of his sword and by the charm of his per-

¹⁵ [qawsūn al-sāqī al-malikī al-nāsirī] L 4 gl: His expression, "Qawsun al-saqi", is one of the honorary titles given to successful princes. [An anonymous quote.]

Charles Rieu, stated in his *Supplement to the Catalogue of Arabic Manuscripts in the British Museum*, item # 186, on Isfahani's *Matali' al-Anzar*: "The work is dedicated, not as stated by Haj. Khal. iv., p. 168 (or, v. 2, p. 1116), to Malik al-Nasir B. Kala'un, but to that Sultan's favourite Amir and Sipahsalar, Kausun al-Saki, who was raised by him to the rank of Viceroy, Na'ib al-Saltanah . . .".

However, we believe that Rieu's reading of Isfahani's text in *Matali' al-Anzar* at this point is not correct. The glossed comment on the title, "Qawsun al-saqi", (as quoted above) does not support a change of dedication of his book from Sultan al-Nasir Muhammad, as his chief patron, to the Amir Qawsun, who also made himself Isfahani's patron. More-over, it is hard to think that Haji Khalfah would have so interpreted Isfahani's Arabic eulogy of the Sultan.

¹⁶ The MS alone reads, "May God strengthen . . ." [shadda Allah . . .]. L, T, and MS Garrett 989Ha read [shayyada Allah . . .].

¹⁷ Known as al-Nāsir Muhammad, he was Sultan of Egypt and Syria during three periods: 1293–1294, 1299–1309, and 1310–1341. Ibn Hajar al-Asqalani writes in his *al-Durar al-Kamīnah* [biography item #4752] that Mahmud al-Isfahani came to Cairo from Damascus in "the year 32", presumably 732/1332, during the third period of al-Nasir Muhammad's rule, and in the 56th year of Isfahani's life. Ibn Hajar also reports that Isfahani was honored by the Amir Qawsun who built a khanqah for him and installed him as its shaykh. Perhaps this was near the mosque Qawsun built, as shown in the map and list of monuments with J. Jomier's article "Kahira", in En-I-2. Qawsun was the sultan's son-in-law and leader of the successful one of two power factions active in the last years of al-Nasir Muhammad's reign. [cf. P.M. Holt, art. "Mamluk" in En-I-2.] Isfahani's commission to write this commentary would have been given sometime during those nine years, 1332–1341.

¹⁸ al-Manṣūr Qalawūn ruled as Sultan of Egypt and Syria from 1279 to 1290.

sonality for a safeguard and vicarious [divine] regency. May He make ready a place for the establishment of his noble residence among the abodes of the stars, one to be completely adorned with all happiness. May God portion out desperation¹⁹ and generous treatment among [the king's] enemies and his friends [respectively]—as long as “the night blots out and the day shines forth” [Qur'an 92: 1–2]—as recompense for some of [the king's] favors and hospitality and for a token²⁰ of his goodness and grace.

The request humbly brought now is that out of the abundant excellence of his [royal] nature [the king] will give [this written work of mine] a favorable reception in his magnanimity and generosity. MS 5a

BAYDAWI'S FOREWORD TO HIS CONCISE TEXT,

Tawali' al-Anwar min Matali' al-Anzar L 4, T 3

Baydawi said:

Praise be to Him

Whose existence and continuance are a necessary confirmation,
And Whose nonexistence and passing away are thus self-prevented.²¹

Demonstrating His existing presence

are the earth, His alone,
and the sky, His alone;

Witnessing to His incomparable singularity

is the careful foundation of the universe,
and its vast superstructure.

He is the Omniscient One whose knowledge comprehends everything

that lies beyond limits of the finite in number and measure.

He is the Omnipotent One whose power of autonomous action
does not cease upon reaching a desired goal:

¹⁹ Reading [ya's] with the MS, although L and T appear to read [ba's]. MS Garrett 989Ha is unpointed here, while the next noun is indeterminate.

²⁰ The MS here provides another preposition “for” [li-], while L and T do not. The MS Garrett 989Ha indicates the tanwīn [shay'in].

²¹ Baydawi's incipit: [al-Ḥamdu li-man wajaba wujūduhu wa-baqā'uhu, wa-imtana'a 'adamuhu wa-fanā'uhu].

Unto Him [all such has] its return,
 By Him [all such has] its beginning.
 He gives order to everything in heaven and earth
 by the sequence of His particularizing command
 Upon the customary rule of His decision primeval.
 How majestic L 5 is His power, how blessed are His names!
 Magnificent are His qualities, and universal His benefits!
 Wandering and lost in the great wilderness of His divinity
 are the reflections and opinions of [man's] intellect;
 Hoping for but affording no perception of Him
 are the highways of [human] thought and all its byways.
 I praise Him, yet praise of Him is beyond measuring.
 I thank Him, yet thankfulness is also His gift.
 I pray for blessing on His Messenger,
 whose zeal and toil made supreme the guidance [of God],
 and whose courage and ability quelled error [in mankind]:
 May God send blessing upon him and his family,
 as long as the bright full moon sends back its soft beams.

Isfahani says:

L 5, T 3, MS 5a

[Here] in [Baydawi's] preamble²² are included most of the essential topics in the principles of our religion. Among these is our author's assured confirmation of the Divine Maker and His attributes, and his admiring exclamations at God's beautiful grandeur as he makes mention of God's necessary existence and His permanent continuance, of the impossibility of His nonexistence and passing away, of His absolute singularity and His knowledge,²³ of His power of autonomous action and sovereign control, of His primeval decision and particularizing command, of His restoration and inauguration [of all things], and of [His instituting] a prophethood that [in itself] is God's ability to herald a new order.

Now, [the term] 'praise' is both for eulogizing and for proclaiming divine favor in kindness and other good things; as one says, "I praised this man for his gracious deeds, and I praised him for his good qualities and his courage".

²² Isfahani's commentary upon Baydawi's text begins here, following it section by section.

²³ The scribe of L has omitted this term.

God, being the Real and True One, Glorious and Most High,
 a. is that One who is described in attributes of majesty, a Master whose qualities are all perfection, and therefore
 b. He is the One worthy of praise and veneration. Moreover,
 c. to characterize the Most High in terms of His necessary existence [and hence every creature's obligation to Him] is [to make] the fundamental statement testifying that He is indeed characterized by attributes of divinity. Therefore,
 d. praise [of the divine] belongs specifically to that Essence Who is characterized by the necessity of [His] existence; and that necessary existence has concomitants

1. the necessity of [His] permanent continuance as well as

2. the impossibility of [His] nonexistence and passing away. In the author's preamble here, the third [proposition] is considered as related to the first, and the last as related to the second, so he complemented the first proposition with the second, and complemented those two with the third and fourth.

Then [Baydawi] pointed out something that demonstrates the Most High's existence by the method of the Mutakallimun,²⁴ [namely,] by the evidence T 4 for His existence in His works, the most evident of His works demonstrating His existence being the earth and the heavens. God Most High said:

"Indeed, if you should ask them, 'Who created the heavens and the earth?' . . . most surely they will say, God.'" [Qur'an 29:61] Also He said: "Can there be any doubt about God, Creator of the heavens and the earth?" [Q 14:10]

[Baydawi's statement,] "Witnessing to His incomparable singularity is the careful foundation of the universe and its vast superstructure", logically requires [in turn] the denial that there is a plurality of gods, for that would be a situation necessarily resulting in the disintegration of both the heavens and the earth. God said,

"If there should be in either of them [i.e., heavens or earth] deities other than God, then both [heavens and earth] would be destroyed." [Q 21:22]

[As a grammatical note here,] the term, "careful foundation" [raṣf] with the quiescent letter L 6 "[ṣād]" is a verbal noun, as one

²⁴ MS gl: This being to reason from the result [al-ma'lūl] to the cause [al-'illah]. The "Mutakallimun" are those who practice 'the science of theological statement'.

says, "The work of setting [raṣaftu] the stones into the building I performed carefully to give it firm stability [arṣufuhā raṣfan] by putting each one of them together tightly."

Then [Baydawī] made it plain that God is 'omniscient' by way of His 'knowledge', not 'omniscient' by way of His 'essence'.

a. His knowledge is a unity, and comprehends everything knowable that lies beyond the limit of counting or measuring. MS 5b

b. Indeed, His knowledge is a unity that is linked to each and every universal and particular, both those that can be sensed and those that can be conceived. God said:

"He has knowledge of all things", [Q 6:101; etc.] and

"Not a leaf falls but He knows of it; nor is there a seed in the darknesses of the soil, nor any place of moisture or of dryness but it is written down in a Book of Plain Record [i.e., the Qur'an]", [Q 6:59] and

"God is One from whom nothing may be hidden, whether on earth or in heaven", [Q 3:5] and

"Though you may announce something publicly, God knows what is in secret and what is still more hidden." [Q 20:7]

Next [Baydawī] set forth the fact that God is omnipotent by way of a power of autonomous action

a. that is necessary through His own essence,

b. that is continuous through His own continuance, and

c. that is linked to all the possible realities. The [power] that specifies some of these possible realities to become real temporal phenomena at certain moments of time acts through the linkage of His divine will to each one. Thus, His power of autonomous action does not cease upon achieving His desired goal, for it is properly His right to restore again some goal to be desired by His will, just as it is forever His right to begin [working for] it. God Most High said:

"As We introduced the first created thing, so We shall restore it." [Q 21:104]²⁵

²⁵ The 'beginning' and the 'restoration' usually refers a) to the original creation of something and its restoration in the Resurrection. Or, it may refer b) to a shorter term goal, that when it is achieved, the 'power' of God is not frustrated by having nothing more to work toward, and thus another goal is set and there is a beginning again which is a restoration in the sense of 'recommencement' in the place of the work completed. See the article "Ma'ād" in En-I-2 by R. Arnaldez.

Then [Baydawi] explained that God Most High makes arrangement for everything that is created from the heavens to the earth by His 'particularizing command' [qadar], which in turn follows along the customary rule of His 'primeval decision' [qaḍā']. God said:

"Everything that We have created has been through a particularizing command", [Q 54:49], "There is not one thing of which We do not have a storehouse full, and We will not deliver it [to mankind] except by our well known particularizing command." [Q 15:21]

So, His 'primeval decision' is an expression for the orderly existence of all created beings within the *Book of Plain Record* and the *Safely Preserved Tablet*,²⁶ all of them having been brought together and totalled up in readiness for an original creation. And His 'particularizing command' is an expression for their existence as having been placed down within the individual 'quiddities'²⁷ after they have obtained their various contingent factors that specifically differentiate them one by one. The 'customary practice' [i.e., by which His particularizing command follows His primeval decision] is the 'customary way', as it is said that a certain person has persisted in one 'customary way'.

How glorious is His power of autonomous action, omnipotent over all things, and not ceasing upon the achievement of His desired goal! How blessed are His names; that is, let His names be exalted and magnified over any descriptions of created beings! God said: "Blessed is the name of your Lord, unto Whom be glory and honor." [Q 55:78]

How great is His favor that He has showered upon us both outwardly and inwardly; How universal are His benefits that include all created beings. God said: "He has showered His favors upon you, both outwardly and inwardly", [Q 31:20] and "If you should count up every favor of God, you could not reach their total." [Q 14:34; Q 16:18]

[Now, note Baydawi's expression], "wandering and lost", that is "bewildered in the vast wilderness L 7 of His divinity are the reflections of [man's] intellect", that is, observance of God by one's mental vision, and by critical opinions about Him.

²⁶ See the article, "Lawh", in *En-I-2*, v. 5:698, by A.J. Wensinck and C.E. Bosworth.

²⁷ [al-a'yān] the identified quiddities [sometimes thought of as 'the ideas'], after

Observance in the intellect by mental vision, when something necessarily cannot be perceived directly, is only a process of defining and describing. But the Creator Almighty has no commonality with anything else at all, whether in the category of genus or species, so He may not be separated distinctly from anything else through the category of either specific difference or accidental quality; rather, He is separately distinct in His essence. Therefore, there is no delimiting definition for His essence, since neither genus nor difference apply to Him. And because He is separately distinct in His essence from anything else, He has no obvious concomitant²⁸ the conception of which would convey the intellect to His reality. Nor is there a descriptive definition of Him that would convey [the intellect] to the observance of Him. For that reason, the reflections of the intellect have gone wandering and lost; that is, observance of Him [fails], from which conception of [Him as] a mental object would benefit, and also critical opinions about Him [fail] from which judgmental assent about Him would benefit.

[This is so] because judgmental assent in logic results only from a syllogistic inference from 1) the cause to the effect, or from 2) the effect to the cause. Now, the first [alternative] would be impossible in His case, for He is the First Cause, the Existential Cause of all created things, from Whom, not about Whom, testimony is requested. The second [alternative] sometimes does not produce certainty, so the intellect becomes confused. God has said,

"We will show them Our signs both in remote regions and within themselves, so that it may be clear to them that this is the truth. Or are you not satisfied that your Lord is a trustworthy witness in everything?" [Q 41:53]

[About this uncertainty Baydawī said], "Violently shaking", that is, with a complete and incomprehensible blockage, "are the highways of [human] thinking and its methods", that is, the directions it takes.

they have received their identifying qualities. They may be thought of existing mentally only, or extramentally in external reality.

²⁸ Isfahani's apparent self-contradiction may be resolved as follows: that God may be abstractly indicated as the Necessary and Obligating Presence [*wājib al-wujūd*], and that this affirmation has the obvious concomitants of 'necessity of continuance' and the 'impossibility of nonexistence and passing away' is an abstract fact. This abstract fact is separately distinct from the religious fact that in His essence God does not have any obvious concomitants.

You should understand that 'thinking', as will be plain when the topic comes up, is the movement of the ['reasoning] soul' among the intelligibles,²⁹ beginning from a 'desired premise' and ending at it as the 'conclusion desired'.³⁰ This [movement of thought] resembles³¹ spatial movement that requires an open stretch of some distance in which movement may take place, and that [intellectual] open stretch is called the 'syllogistic way', or method.

Since the movement begins from [the desired premise] and the movement ends with [the desired conclusion], and as each of them is called [in logic a propositional] marker point,³² [Baydawi] therefore likened those intelligibles to the highways in which spatial movement takes place, and he likened the desired premise from which the [thought] movement began and the [desired conclusion] at which it ended to marker points, so he called these two³³ by those names.³⁴

After [Baydawi] had made it plain that praise belongs to a Being who would be characterized by attributes of grandeur and would be a giver of favors to others, and that God Most High is He, that One who is characterized by attributes of grandeur and who is the Lord of favors, he began to praise [God] and said: "I praise Him, yet praise of Him is beyond measuring." Here he was emulating the example of the Master of messengers, God's blessings be upon him, wherein the Prophet had said: "I cannot measure praise due unto You in the same measure that You have brought it upon Yourself."³⁵

[Baydawi] also said, "I thank Him, yet thankfulness is also MS 6b His to give." [This is] because the acts of human beings are created and belong to God, thanksgiving being among the acts of human beings. L 8 Indeed, [thanksgiving] consists in a eulogy upon one's tongue, action taken with all one's might, and conviction within one's

²⁹ For a preliminary concept of the 'reasoning soul' we have Baydawi's term 'soul', that functions like an 'intellect', the intellect being the distinguishing component of the human soul. And sometimes it will be called simply 'the intellect'.

³⁰ Both are the [maṭlūb].

³¹ L reads: [li-shibh]; T: [tushbih] apparently with "movement" as verb subject; the MS: [yushbih] apparently with "thought" as verb subject, and a gloss: "the predicate of [anna]".

³² [jihah].

³³ MS gl: I.e., the 'intelligibles' [al-ma'qūlāt] and the 'desired marker point' [whether premise or conclusion] [al-maṭlūb].

³⁴ MS gl: I.e., the 'highways' [al-ṭuruq] and the 'marker point' [al-jihah].

³⁵ [lā uḥṣī thanā'an 'alayka anta ka-mā athnayta 'ala' nafsika]; a hadith indexed in Wensinck's *Muḥjam Alfaz al-Hadith al-Nabawi* as being in most or all of the major hadith collections. Found in *Sahih Muslim*, Salah #222.

heart.³⁶ Taken all together, T 5 [thanksgiving] is to devote one's soul, one's body members, and one's powers, both outwardly and inwardly, 'to that for which they were created',³⁷ and thus 'thanksgiving' is the gift of God.

Then, since all happiness, whether heavenly or earthly, whether temporal or eternal, is something that comes to us through the Messenger, God said [i.e., to him],

"We have sent you strictly as an act of mercy to the world's inhabitants." [Q 21:107] God has commanded us to ask blessing upon him, saying,

"Indeed, God and His angels ask blessings upon the Prophet; O you who believe, ask blessings for him and greet him abundantly with 'peace.'" [Q 33:56] So [Baydawi] began to pray for blessings to be upon him, and said, "I pray a blessing to be upon His Messenger who³⁸ has made supreme the guidance [of God] . . ." such that it has reached to the eastern parts of the earth and to the western.

[Notes on Baydawi's syntax here.] The term, 'toil', [ʿanāʾ] is spelled with an 'a' and is the verbal noun of [ʿaniya], spelled with an 'i', and in the imperfect tense with an 'a', as [yaʿnaʾ]. He quelled error, that is, his courage, or, his strength conquered [it], and 'his ability' [ghanāʾuhu], spelled with an 'a' is 'his advantage'. 'Shining out' [ḍiyāʾ] means 'brightness'. One says, "The light of the fire made a brightness", [ḍāʾat] with either [ḍawʾan] or [ḍiyāʾan], and the word [aḍāʾat] is like it. It sometimes occurs as transitive [mutaʾaddiyan]; one may say, "The fire brightened it." The word [aḍāʾa] here is transitive, its active agency being its shining out [ḍiyāʾuhu], and the pronoun [hu] attached to it refers to the Messenger [as antecedent]. The 'bright full moon' is its object in the accusative case. But it can

³⁶ Near his commentary's beginning Isfahani places this statement in triadic form based on the rhyming of [lisān—arkān—janān], here focussed on the concept of praise as thanksgiving. Near the ending of his commentary, in Book 3, Section 2, Topic 8, Isfahani changes this same triad to focus on the concept of "faith." As such it is discussed in the article, "Iman.—I. Elements and conditions of the act of faith", by Louis Gardet in the *En-I-2*, v. 3, pp. 1170b-1171a.

³⁷ The foregoing clause echoes the second part of a quotation used by the Prophet, but not attributed to him as its originator; in full it is: "Everyone is easily amenable to that for which he was created." Baydawi uses this quotation in his argument in Book 3, Section 2, Topic 4b. As a hadith it is listed in *Sunan Abu Dawūd*, *Kitab al-Sunnah*, #4709.

³⁸ The MS adds here the clause, . . . "Whose zeal and toil", as in Baydawi's text, but Isfahani abridges the passage, and it is omitted by L and T and MS Garrett 989Ha.

also be intransitive [lāziman], and in that case "the bright full moon" would be the active agency of [adā'a], [diyā'uhu] being in apposition to it.

Baydawi said:

L 8, T 5

To proceed further:

- a. the greatest of all our sciences in subject matter,
the firmest of them in principles and corollaries,
the strongest of them in evidence and proof, and
the clearest³⁹ of them in argument and method,
is that Science [of Theological Statement] which is the
 1. Guardian in making manifest the sublime mysteries of divinity
hidden by the curtains of [divine] omnipotence; the
 2. Observer of everything present in the sovereign domain
as well as everything unseen in the divine kingdom; the
 3. Distinguisher between those chosen to bear a message and
to guide
and those disposed by nature for error and evil; the
 4. Unveiler of the states of the blessed and the miserable
in their final abode on the Day of Justice and Decision; and the
 5. Solid Platform for the Religious Law's [pillar] bases; and it is
[the Law's] foundation, as well as being the chief and headmost
of the distinguishing signs of our religion.⁴⁰

³⁹ The two immediately preceding adjectives, superlatives formed on weak-lam verb roots [aqwa'—ajla'], are examples of problems faced by the Iranian author as well as by the Ottoman scribes and editors of this work in Arabic spelling. L: [aqwihā—ajlāhā]; T (edited in Cairo): [aqwāhā—ajlāhā]; MS Garrett 283B: [aqwihā (?)—ajlāhā]; MS Garrett 989Hb: [aqwihā—ajlihā]. Isfahani's text in L is [aqwihā] while in T it is [aqwāhā], but he chooses [awḍaḥuhā] as a synonym of [ajlāhā] and that precludes misreading the latter as [ajallahā], perhaps a more common term in laudatory texts.

⁴⁰ Baydawi first defines the [ilm al-kalām] by this list of its functions, and his commentator Isfahani starts out by giving a generic definition for it that serves to designate the larger body of knowledge from which the [ilm al-kalām] branched out. Modern scholarship also wrestles in translation for a definition of this newly growing 'branch of religious knowledge'. Professor Louis Gardet has written on this matter in the En-I-2. In his article titled "Kalam", he distinguishes our topic from other usages by defining [ilm al-kalām] as "defensive apologetics", or "the science of discourse (on God)."

In his article titled "Ilm al-kalam", he begins by saying "The term is usually translated, as an approximate rendering, 'theology.'" Then he quotes two authorities. The philosopher Farabi said, that it was "a science which enables a man to procure the victory of the dogmas and actions laid down by the Legislator of the

Isfahani says:

L 8, T 5, MS 6b

a. Our author's intent is to point out the fact that the noblest of all branches of knowledge is the [body of] systematic knowledge of the fundamental principles of our religion [that is, 'the science of theological statement'], in order to motivate students to desire and seek it.

Now,—wherein the greatness and nobility of any science rest upon the greatness and nobility of its subject matter, and L 9 upon the firmness of its principles, namely, its universal foundations, as the fact that the Most High is a free agent, and its corollaries, namely, questions that branch out from the universal foundations, such as the commissioning of prophetic messengers and the resurrection of human bodies, and upon the strength of its evidence and proof and the clarity of its argumentation and method,—then, to that extent every science will have had its subject matter become greater and nobler, its principles and corollaries firmer, its evidence and proof stronger, and its argumentation and method clearer. Indeed, that science [of theological statement] will be greater and nobler, this being the greatest of all our sciences in subject matter, firmest of them in principles and corollaries, strongest of them in evidence and proof, and clearest of them in argumentation MS 7a and method; this is the science called [the 'science of] theological statement'.

1. [Baydawi describes this 'science of theological statement' first] as "the Guardian" in presenting clearly and publicly the attributes of the Most High's essence, [a task that is done] through [studying] the attributes of [God's] acts. [Baydawi's use of the term] 'to

religion, and to refute all opinions contradicting them." Further, from Ijī's *Mawāḥiḥ*: "Kalam is the science which is concerned with firmly establishing religious beliefs by adducing proofs and with banishing doubts" (p. 7 in our edition). After this Gardet gives a full history of the development of this science, first among the Mu'tazilah in defending Islam against Mazdaean and Christian apologists, then later among the Asha'irah who were more in the mainstream of Islamic thinking and practice. The Mu'tazilah fell out of favor and "Mu'tazilism was in turn condemned and most of its productions [in religious literature] were destroyed." "The discovery of these works [e.g., 'Abd al-Jabbar's *Mughni*] in the Yemen is another proof that under the challenge of the 5th/11th century reaction [against them] the influence of the school continued to be felt in non-Sunni milieus" (En-I-2 v. 3: p. 1144a).

Gardet lists (v. 3, p. 1145a) among the "later Mutakallimun" of the Asha'irah school Ghazali, Shahrastani, Fakhr al-Din Razi ("one of the most original thinkers of this school"), then skips to Isfahani, Ijī, Jurjani and Dawani. Perhaps Baydawi was skipped here because he is considered to be more of a jurist than a Mutakallim.

We believe that the translation, 'the science of theological statement', will serve as a useful and correct interpretation.

manifest' means 'to present clearly and publicly', the 'sublime mysteries of divinity' are the attributes of [God's] essence, 'the divinity' being [God's] essence, and the 'curtains of divine omnipotence' are the attributes of the [divine] acts; thus, the attributes of [God's] essence are behind the cover of the attributes of [His divine] acts.

2. [Baydawi's] expression, "the Observer", is a second descriptive for that science [of theological statement, in its natural comprehension] of the observable aspects of the world, namely, everything perceptible to the senses, as well as the unrevealed aspects of the divine kingdom, namely, the intelligibles that are absent to the physical senses. For indeed, among the realities possible that [have become] existents there are those that are perceived by physical sense, being called the 'observable evidence', the 'sovereign domain' and 'the creation'; and there are those that are perceived not by physical sense but rather by the intellect, these being called 'the unseen', the 'divine kingdom', and the 'governing authority'. God has referred to both these categories when He said,

"He is well aware of the unseen and what can be observed", [Q 6:73]

"Do not all creation and all governing authority belong to Him?" [Q 7:54]

"Blessed be He in whose hand is the sovereign domain", [Q 67:1] and,

"Praise be to Him in whose hand is the divine rule over all things." [Q 36:83]

3. [Baydawi's] expression, "the Distinguisher", is a third descriptive of that science [of theological statement]; that is, [it is] the agency distinguishing between those chosen to bear a divine message and to guide and those disposed by nature for error and ruin, namely, those created with a disposition for these things. 'Ruin' means 'destruction', and is the verbal noun of "perished."

4. [Baydawi's] expression, "the Unveiler", is a fourth descriptive of that science [of theological statement]; that is, [it is] the Unveiler of the states of those in bliss or in misery in the Hereafter, these being their [respective places] of final abode on the Day of Justice and Decision.

5. [Baydawi's] expression, "the Solid Platform for the [pillar] bases of the Religious Law" is a fifth descriptive [of the science of theological statement]. It follows in orderly fashion upon what has preceded, namely, that the [pillar] bases of the Religious Law and the distinguishing signs of our religion are founded upon the Book

and the Prophet's Custom, and the [process of] inference drawn from both of these depends upon the fact of having established that God L 10 is One Who speaks, Who sends messengers, and Who gives revelations to them. These matters are known only from the 'science of theological statement'. Therefore, [this science of theological statement] is the Solid Platform for the [pillar] bases of the Religious Law and is its foundation, as well as being the chief and headmost of the distinguishing signs of our religion. Thus, the distinguishing signs of our religion are 'in need' of the science of theological statement, while the 'theological statement' is not 'in need' of them.

The science characterized by these attributes is the greatest of all our sciences in its subject matter, firmest⁴¹ of them in principles and corollaries, strongest of them in evidence and proof, MS 7b and clearest of them in argumentation and method, only because its subject matter is the essence of God Most High, and the essence of all created things. [It is so] because in this way it investigates the attributes of God and the various conditions of all created things wherein these factors will lead to conviction in what should be believed.

Let no one say that it is inadmissible to make the essence of God a subject [for study] in the science of theological statement, because the subject of every science is something that is granted [as a presupposition] in that science, either being clearly evident in itself or made evident in some other science. Furthermore, the essence of God is neither something clearly evident in itself, because it is a matter of logical reasoning, nor is it made evident in some other science, because the rest of T 6 the sciences of the religious law seek help in this matter through 'theological statement'. As a particular example, the certainty that there is a Creator is not due to what people say, namely, that His essence is 'made clear through philosophy' and is 'granted as a presupposition in theology', because that would not be sound reasoning. How could it be admissible that the [main] subject in the highest of the religious sciences would be made clear within some other science foreign to the sciences of the religious law? Rather, since what would be made clear by proof is the 'existence' of an essence,⁴² this ['existence'] being something 'additional' to the essence [itself], that is, to [its] existence in absolute

⁴¹ L mistakenly reads, [aqwihā] instead of [aqwamuhā].

⁴² The MS alone parenthetically inserts here: (not the essence of Him the Most High).

terms, it would be therefore one of the states of the essence. Now, an investigation—of the states of a [given] subject of a certain science—that would be carried on within [that same] science, would not exclude the [given subject's] essence from becoming the subject [of investigation].

Thus, if it should be objected that the certainty of a [given] subject's 'existence' would not be established within the [same] science, but rather in some other [science], and if its 'existence' should not be evident [within its own science], and if its 'existence in relation to [its own] essence' should not be evident [within its own science], so that it would need to be demonstrated, then the answer [to the objection] would be that if the investigation should be about the 'states', these being [a subject] other than the 'existence', then the existence of this subject would be granted and it would be made clear in some other science. But if the investigation should be about the 'existence' [of the main subject in the science], then that would not be made clear in some other science, but rather, within that [same] science. In that case [the 'existence' of the subject] would be one of the problems of [that certain] science. This is provided that [the disputants'] statement—that the existence of the subject would be made clear nevertheless, in another science,—is not to be taken in its absolute sense. Rather, what is meant by [their statement] is that the subject [of this science, i.e., 'theological statement'], being more specific than the subject of some other science, would have its existence made clear in the other science only if it should not be clear [in its own science of 'theological statement'].

So, it is apparent that the greatest of the sciences in subject matter L 11 is [the science of] theological statement. Also, with regard to the fact that the science of theological statement is the firmest of the sciences in its principles and corollaries, compared to the [other] sciences of our religion, that is true because it is a knowledge of conviction, while in the rest of them it is conjectural [knowledge].

Compared to the topics in divinity in the system of MS 8a the Physician-Philosopher [Ibn Sina], [the science of theological statement] rests upon:⁴³

- a) divine inspiration which provides the truth of conviction,
- and
- b) divine aid that is both

⁴³ L: [musnad]; T, MS and MS Garrett 989Ha: [mustanad].

1) required for completeness of what is knowable, and is
 2) free from the defect of fallible estimation; and all that is in contrast to the topics in divinity in the system of the Physician-Philosopher. His [system] is based upon the intellect to which the fallible estimation raises objections. Thus, if the fundamental principles should be such, then the subsidiary corollaries would be likewise.

With regard to [the science of theological statement] being the strongest of [the religious sciences] in evidence and proof, this is true because its evidence provides a decisive demonstration, and it is clearest in argumentation and method because it is the method of the prophets. [This science of theological statement] is the Straight Path, the Path of God, "to Whom belongs all that is in the heavens and on the earth." [Q 2:255, 284, etc.]

Baydawi said:

L 11, T 6

This [then is the preamble]. Our book employs the wisest intellectual maxims and the finest traditional selections in the ongoing task of examining [our theology's] fundamental principles and bringing out its distinguishing factors, in summarizing its laws and verifying its demonstrations, in resolving its problems and clarifying its enigmas. Even together with its brevity of expression and resulting ease of memorization, it includes topical ideas having many branches whose boundary sides are close together, and these are uniformly identifiable in their fundamental concepts and introductory steps, and soundly correct in their sublimities and their passages of transition.⁴⁴

I named it: *Rays of Dawnlight Outstreaming from Far Horizons of Logical Reasoning*. And from God, to Him be praise, I ask

that He will safeguard me from anything worthless and guide me on a steady path,

that He will forgive my sins on Judgment Day and bring me to the highest heavens,

"together with the prophets and people of truth,
 the martyrs and people of virtue." [Qur'an 4:69]

⁴⁴ [musawwamat al-mabādi wa-al-maṭālī' muqawwamat al-'awālī wa-al-maqāṭī']. Baydawi appears to favor an architectural metaphor: foundation, entry stairway, upper areas, lines of definition. Isfahani reverses the order of the first two nouns, perhaps favoring a topographical metaphor: introductory climbing approach, spread out platform foundation, sublimity of conceptual subject, passages intersecting with history.

Isfahani says:

L 11, T 6, MS 8a

[Baydawi's expression, 'this, then' means] 'this has been the preamble', or, 'accept this [as introduction].' His expression, 'wisest intellectual maxims' ['aqā'il], being the plural of ['aqīlah], means 'the best'; it is the precious part of any thing, that is, it includes the choicest intellectual statements and the best traditional studies—as one says, "The choicest of his companions came to me", that is, the best of them—while continuing to examine its principles and deduce its distinguishing factors.

So indeed, the principles mentioned in it are reviewed, and the distinguishing factors noted in it are extracted [and listed for study]. As the term, 'to review', means 'to trim', the meaning is that its fundamental principles are reviewed and trimmed of all that is extraneous. Its distinguishing factors have been clearly formulated and extracted to rest upon the bases of the faith, and the religious laws have been summarized, that is, clarified and explained, 'summarizing' meaning 'clarify' and 'explain'.

The word, 'difficult' [also] means 'ambiguous'. One may say, L 12 "The matter became difficult", that is, ambiguous. One may say, "The affair became problematic", that is, hard and incomprehensible, and "a problematic matter does not lead straight ahead." Also, "clarification" means 'explanation', as one says, "I clarified it", that is, "I explained it."

The 'many divisions', [i.e., especially of peoples], [shu'ūb] being the plural of [sha'b] with an 'a' after the '[shīn]', are what have been divided into many branches, or tribes among the Arabs.⁴⁵ The term, "sides", [junūb] being the plural of 'side' [janb], [as in] 'their boundary sides are close together', that is, they are near to each other. The expression, 'uniformly identifiable' [literally, 'designated by a mark' [musawwamah], means something known [by its mark]. A statement of the Most High [refers to angels], "having a uniform insignia" [musawwimīn], [Q 3:125] that is, marks by which they are readily known. Also, the word of the Most High is, "stamped clay bricks", [Q 51:33] that is, they have the seal imprints [of manufacture]

⁴⁵ Baydawi and Isfahani both use only one set of the nouns from the root [sh-'-b], namely, [sha'b—shu'ūb], now commonly meaning 'people'. However, the context indicates that their meaning fits another set, namely [shu'bah—shu'ab], meaning branch or division.

stamped on them. And the term, 'made correct' [muqawwamah], means, 'properly correct'. One says, "I made the thing to be correct [qawwamtu], so it is sound [qawīm]", that is, properly correct [mustaqīm].

Our author meant by the phrase, "the introductory steps and fundamental concepts", the topics on 'logical reasoning and its principles' and on the 'realities possible', and by the phrase, "the sublimities and their passages of transition", he meant the topics on 'realities divine' and 'realities prophetic' and on the 'supreme leadership', which are obvious.

Baydawi said:

L 12, T 6

The content of the volume is arranged in an introduction and three interior books.

Isfahani says:

L 12, T 6, MS 8b

Since the chief reason for composing this volume has been to establish firmly both the fact of the Creator and His attributes and of the Prophethood with its linked topics, all by using intellectual demonstrations set up from premises drawn from [all] the realities possible by logical reasoning about them, our author arranged the volume into an introduction and three interior books. The Introduction is on Studies in Logical Reasoning, Book 1 on Realities Possible, Book 2 on Realities Divine, and Book 3 on Realities Prophetic, with their related matters.⁴⁶

⁴⁶ Through the course of these lectures, readers can note the influence of great authorities of the past on Baydawi. The Jubba'i family among the Mu'tazilah and al-Ash'ari among the Asha'irah Sunnis are prominent among his esteemed guides. His thought was informed by the work of Ibn Sina in philosophy and science and Fakhr al-Din Razi in historical theology. G.C. Anawati's survey of Razi's *Muhassal* in the En-I-2 (under *Fakhr al-Din Razi*) reveals how Baydawi has made his contribution in form and content generally following Razi. This is in line with the normal custom for medieval speakers and writers to build what they have to say on the work of earlier authorities. But we believe that in a comparison with Razi the *Tawallī al-Anwar min Matalī al-Anzar* of Baydawi is a better model in the outlining and statement of topics and arguments. Baydawi's permanently useful work in this regard is fully appreciated by scholars in both medieval and modern times, as we have documented in the Preface.

AUTHORS' INTRODUCTION

STUDIES IN LOGICAL REASONING

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THE INTRODUCTION:
STUDIES IN LOGICAL REASONING.¹

Isfahani says:

MS 8b

THE INTRODUCTION:
STUDIES IN LOGICAL REASONING

An introduction is intended to support the topical material following. Since the topics of the three interior books are based on matters that are linked together by logical reasoning, our author has set forth his studies in logical reasoning as the introduction T 7 to the three books. And since logical reasoning is the process of arranging facts that are known—whether these be [preliminary] conceptions or [notions] accepted by consensus—in a way that leads to learning something that is not already known, studies [in the process of alternating] ‘intellectual conception’ and ‘judgmental assent’ have come to be the beginning steps for ‘logical reasoning’.

If these organized factors lead to an intellectual conception, they are called a ‘definition’ or an ‘explanatory statement’, and if they lead to an assenting judgment they are called a ‘convincing argument’ or an ‘inferential proof’ demonstration. Therefore, since logical reasoning comprises these two factors [i.e., intellectual conception and judgmental assent], it has [important] distinguishing properties.

¹ Aristotle, Ibn Sina, and Fakhr al-Din Muhammad Razi, in their historical sequence, all make a study of logic and epistemology the general and introductory basis for consideration of other particular sciences. Writing for the generation just prior to Baydawi, Razi began his book, *Muḥaṣṣal Afkar al-Mutaqaddimin wa-al-Muta’akhkhirin* . . . (*Compendium of thought ancient and modern*) [Cairo, Reprint of 1323 A.H. ed., pp. 16–50], with three ‘pre-suppositions’ [muqaddimāt]: 1. the pair, ‘[intellectual] conception’ and ‘judgmental statement’ [taṣawwur/taṣdīq], are primary features of knowing, which, following Ibn Sina, Razi treated as linked but not as functioning together in an alternating process responding to the data of perception; 2. ‘the distinguishing properties of logical reasoning’ [aḥkām al-naẓar], which Baydawi put at the end of his introduction; 3. inferential proof [al-dalīl].

In his Introduction the author set out four Chapters: 1. Principles of [Epistemology], L 13 2. Explanatory Statements, 3. Argumentation, 4. Distinguishing Properties of Logical Reasoning.

Baydawi said:

L 13, T 7

CHAPTER 1: PRINCIPLES OF EPISTEMOLOGY

1. *The two phases of knowing: an alternation between a. and b.*

a. *Concept formation—regarding what is being perceived*

b. *Judgmental assent—or dissent to features of the concept being formed*

c. *Each phase either by intuition or by rational acquisition of knowledge*

(a.) Understand that thinking about something by itself, without passing any judgment on it whether of denial or assertion, is called [‘intellectual’] conception’.

(b.) But with a judgment passed on it either way, [this act of thinking] is called ‘judgmental assent’ [or dissent, to the concept being formed].

(c.) Each of these [phases of knowing] is divisible into

1. intuitional [knowing], that does not depend upon logical reasoning and thinking in order to take place, as forming a concept of existence or nonexistence, and judging that denial and affirmation may not be held together [in consideration as both true] nor removed together [from consideration as both untrue],² and

2. acquisitional [knowing], that does have need [for reasoning and thinking], as forming a concept of angels and of demons, and acquiring knowledge of the temporal origination of the world and of the eternity of the Creator.

Now, if MS 9a these intellectual conceptions and judgmental assents should be altogether inherently necessary [as intuitions] or [if they should be] by acquisition, then we would not lose anything nor would we gain anything [in the way of knowledge], because knowledge by logical reasoning is acquired only from other things

² The scribe of L inadvertently wrote a “lām” where a “tā” was meant: [y-r-l-f-²-n].

that were previously known. If these [conceptions and judgments] should be altogether by acquisition, then the implication would be that each one would be resting upon something else, either on subject-substrates having limitations or on those not having limitations, and this would imply either a circular argument or an infinite series, these both being impossible.

Isfahani says:

L 13, T 7, MS 9a

CHAPTER 1: PRINCIPLES OF EPISTEMOLOGY

1. *The two phases of knowing: an alternation between a. and b.*

- a. *Formation of a concept regarding what is being perceived*
- b. *Judgmental assent or dissent to features of the concept of being formed*
- c. *Each phase either by intuition or by rational acquisition of knowledge*

(a.) Understand that ‘thinking’ about a thing constitutes the perception of it [as being] abstracted from the extraneous qualities and material properties that its quiddity does not require, by reason of its being a quiddity.³ This [‘thinking’] is one species of perception. ‘Perception’ provides a representation⁴ of the real nature of the thing⁵ to the percipient.⁶ That [species of perception in the reasoning soul] that is observing [this real nature of the thing] itself is the functioning instrument by which [the thing’s real nature] is perceived.⁷

³ MS gl: Isfahani’s expression, “by reason of its being a quiddity” [‘an māhi-yatihi], admissibly means “from” with the meaning of a causative preposition [“by reason of its being a quiddity”]. This would be like the phrase in the statement of the Most High, “He does not speak from caprice”, [Q 53:3] that is, ‘by reason of’ His caprice.

⁴ MS and L 13 gl: This is not a true definition of ‘perception’, being so far from such that it would be received as a circular definition, because the understanding of the percipient depends upon his own understanding. Rather, this is an interpretation and a distinguishing of its meaning from among all other intelligible meanings, to define it as the thing called by this name, and not something else. [From Ibn al-Mutahhar al-Hilli’s glosses on Nasir al-Din Tusi’s *Taqrid*].

⁵ MS gl: I.e., its nature as imprinted upon it [al-intiqāsh].

⁶ MS gl: This being the [reasoning] soul. [N.b.: the intellect is the dominant part of the reasoning soul.]

⁷ [yushāhiduhā mā bihi yudrak] The MS and T: [yudrak]; L: [tudrak].

And this [functioning instrument operates] on four levels: 1. sensation, 2. imagination, 3. estimation, and 4. thinking.⁸

1. 'Sensation' is perception of the thing as being enclosed by accidental qualities and material properties along with the presence of matter,⁹ and a special relationship¹⁰ between [the matter] and the percipient.

2. 'Imagination' is perception of [the thing] as enclosed by accidental qualities and material properties, but there is no stipulation of the presence of matter and its special relationship [to the percipient].

3. 'Estimation' is perception of a particular meaning¹¹ linked to what has been sensed.

4. Some scholars make 'perception' specifically mean 'sensation', but then clearly it would be distinct from 'thinking.' And 'knowing' [or, 'cognition']¹² sometimes is taken to mean 'perception' in its first sense;¹³ so then, each one—sensation, imagination, estimation, and thinking—would be [a species of] 'knowing'.

(b.) Further, some scholars restrict 'knowledge' [i.e., as accumulation] to being a mental entity.¹⁴ In that case, ['knowledge'] clearly would be distinct from 'perception' having the meaning 'sensation', and in absolute terms it would be more specific than 'perception' in the first meaning [of 'sensation']. Now, by every interpretation, 'thinking' is more specific than 'knowledge' in absolute terms. But sometimes L 14 [the term] 'knowledge' is applied to mean a 'judgmental statement', while sometimes it is applied to mean a 'judgmental statement of conviction'.¹⁵

⁸ [iḥsās], [takhayyul], [tawahhum], [ta'aqqul].

⁹ MS gl: That is, [its own] identity, namely, external existence.

¹⁰ MS gl: [I.e.], of comparison or possession and of nearness or distance.

¹¹ MS gl: As the 'hostility of Zayd' or the 'friendship of 'Amr'.

¹² [ʿilm]—H. Wehr's *A Dictionary of Modern Written Arabic* gives "knowledge" and synonyms and reads the word as a sort of 'intellectual accumulation', as the first group of definitions. The second group of definitions read it as a 'process': cognition, intellection, perception, knowledge. Indeed, 'knowing' has been omitted from this list in error.

¹³ MS gl: Namely, representing the real nature of a thing to the percipient.

¹⁴ MS gl: I.e., something that is not an obvious physical sensation.

¹⁵ MS gl: I.e., a belief that is convinced and certain and that correctly applies to the actual facts.

Ibn Sina's theory of knowing

Then the Shaykh [i.e., "al-Shaykh al-Ra'is" Abu 'Ali Ibn Sina], in his book, *al-Isharat*, had divided ['knowing', as meaning 'perception'] in the first sense¹⁶ into

a. plain 'conception', that is, free from any 'judgmental assent' [to it], and

b. conception with 'judgmental assent' [to the correctness of the conception]. And [also] in his book *al-Shifa'* he divided ['knowing'] into 'conception' only, and 'conception with judgmental assent'.

[It would be] as when we say, "All whiteness is an accidental quality." [Understood] in this way,

(a.) the 'conception' informs you that in the mind there has been created MS 9b both the 'form' of a [particular] composition and what it is composed of, as its whiteness and its quality as an accident, while

(b.) the 'judgmental assent' consists in the fact that in the mind the relationship of this 'form' to the entities themselves takes its place, in that the one properly matches the other.

Some of the scholars who divide 'knowing' into conception and judgmental assent [to the conception being formed] mean by 'conception' a simple perception, that is, perception in which judgment is not a property, and [they mean] by 'judgmental assent' a perception in which judgment is a property. Other scholars¹⁷ made 'judgmental assent' (or, a 'judgmental statement') an expression for the total of perception and judgment [together].

Baydawi's general theory of knowing

L 14:10

The author [Baydawi following Ibn Sina] has divided 'thinking' into two divisions:

a. thinking about a thing when [thought] avoids any judgment about it, whether excluding some factor from [the thing] or affirming that factor of it, and

¹⁶ Gloss in MS Garrett 989Ha: This is according to [Isfahani's] statement "Knowing [al-'ilm] is sometimes taken to mean 'perception' in its first sense."

¹⁷ Glosses: 1. The MS: That is, a 'conception that has been judged'. 2. L 14: This is the school of the 'Imam'. [Presumably this is F.D. Razi, although the same title is also applied to Ibn Sina]. Razi's *Muhassal* [pp. 19–20, Cairo reprint of the 1323 ed.] appears to corroborate this by relegating the conception of simple perception to a minor usage.

b. thinking about a thing along with making a judgment as to one of these two alternatives. He called the first of these [divisions intellectual] 'conception' and the second 'judgmental assent'. He specified 'thinking', out of all the other species of perception, as being in two divisions only because matters that are known and the arrangement of which is done by thought and logical reasoning are 'intelligibles', and not matters of sensation, or imagination, or estimation. This is according to what you will be learning, that 'thinking' is the movement [of the reasoning soul] among the 'intelligibles'.

This division of 'thinking' into two divisions and naming one of them 'intellectual conception' and the other 'judgmental assent' does not imply that there would be no division of the other species of perception into two divisions and naming one of them 'conception' and the other 'judgmental assent', nor [does it imply] that one [division] of them would not be named 'conception' only or 'plain conception', and the other 'conception with judgmental assent', that is, 'a judgment'.

[Baydawi's] expression, "by itself", is a condition of the object entity [under which it is intellectually conceived]. Also, his expression, "without passing any judgment upon [the object] whether of denial or assertion",—that is, without a judgment for either one of these being a property [of the thought],—clearly explains his expression, "by itself."

What is meant by this is that no [particular] judgment would be made a property of [the thought], not that a lack of judgment would be a property of it. 'Judgment' consists either [positively] in the 'projection' [i.e., upon the conception] of a relationship of certainty or [negatively] in the 'removal' of it. The 'projection' is held to be either an imposition of necessity or an affirmation of certainty, and the 'removal' [is held to be] either a negation or a rejection. The 'relationship L 15 of certainty' may consist in

a) the affirmation of one thing T 8 about another by way of identity, as the affirmation of being an accident is for whiteness in our statement, "Whiteness is an accident"; or, it is in

b) the affirmation of one thing together with another by way of accompaniment, as is the certainty in our statement, "The sun has risen", together with our statement, "The day has come", when we say, "If the sun MS 10a has risen then the day has come"; or, it can be in

c) the affirmation of a distinction between one thing and

another by way of difference, as is the difference between our statement, "This number is even", and our statement, "This number is odd", after we say, "This number is either odd or even."¹⁸

(a.) So, on this basis,¹⁹ thinking about a thing without any judgment being made as an accompanying property [of the thought], is called intellectual 'conception',

(b.) while thinking about a thing with a judgment being made about it as an accompanying property [of the thought], is called 'judgmental assent' [i.e., assent to the conception being formed]. Between these two [mental actions] there is a real difference, in the sense that they may not be affirmed [together as both true], nor removed [together as both untrue] from the thinking process.

There is no implication that a conception, that would be formed about each of these two terms,²⁰ would exit from [the category of] 'intellectual conception' and enter [that of] 'judgmental assent', because the conception formed about each of these two terms would be [simply] a thought about [that] term by itself; that is, no judgment would accompany [the thought], so it would be outside [the category of] 'judgmental assent' and still within [that of] 'intellectual conception'. Nor is there any implication that a conception that would be formed about the 'subject [of a sentence] together with its predicate' would [therefore] become a 'judgmental assent', because this 'intellectual conception' of the subject²¹ would have no judgment accompanying it.²²

On Baydawi's theory of knowing as intuition and acquisition L 15:12
[Baydawi's] statement—that each of the pair, namely, '[intellectual] conception' and 'judgmental assent', is divided into

¹⁸ These three ways of stating certainty may be otherwise described as statements that are: a) categorical proposition, b) conjunctive hypothetical, c) disjunctive hypothetical.

¹⁹ MS gl: That is, on the basis of [Baydawi's] division of 'thinking'.

²⁰ I.e., the 'conception' and the 'assent' to it.

²¹ L alone of sources used inserts, "with its predicate" [ma'a al-ḥukm].

²² L 15 gl: With reference to his expression, "would have no judgment accompanying it . . .": since there is no doubt that judgment does accompany all the three concepts [i.e., subject, predicate and their judgmental relationship [al-maḥkūm 'alayhi—al-maḥkūm bihi—al-nisbah al-ḥukmīyah], i.e., only when all the three are taken together], but it would not accompany merely one or two of them. [Coded *Hashiyah*; presumably from al-Sharīf al-Jurjānī's glosses [*Hashiyah*] on Isfahānī's commentary.]

1. intuitional [knowing] that does not depend upon logical reasoning and thought for its attainment, and

2. acquisitional [knowing] that does depend upon logical reasoning and thought,—has the meaning that some portion of each of the pair would be intuitional [knowing] and some portion of each would be [rational] acquisitional [knowing].

(1.) An example of 'intuitive [intellectual] conception' would be the conception of existence and of nonexistence, while an example of 'intuitive judgmental assent' would be the judgment that denial and affirmation may not be joined together [in a statement as both true] nor may they be removed together [from a statement as both untrue].

(2.) An example of a 'rationally acquired conception' would be the conception of an angel or a demon, while an example of a 'rationally acquired judgmental assent' would be knowledge of the temporal origination of the universe or of the eternity of the Creator.

However, in the matter of defining intuitive judgmental assent as not depending upon logical reasoning and thought, an observation is required. For indeed, intuitive judgmental assent sometimes does depend for its attainment upon logical reasoning and thought, in that both of its terms,²³ or one of them, would be acquired knowledge. Therefore, it would be preferable to say regarding intuitive judgmental assent, that the conviction of the intellect is not dependent,—within the relationship that holds between its two terms [of subject and predicate] after a concept of them both has been formed,—upon logical reasoning and thought. In this sense, intuitional [knowing] deals with observable facts of evidence, and these are the phenomena from which knowledge benefits. They come either from

a) external L 16 sensation, these being called 'sensate phenomena', as our judgment that the sun is up, or

b) from internal sensation, these being MS 10b called 'impressionistic phenomena',²⁴ as our judgment that we are fearful and angry.

Some scholars have interpreted intuitive judgmental assent [merely] as that which the intellect must have when it forms conceptions of its two terms [subject and predicate] without any other aid. The first

²³ "Both of its terms": i.e., the subject and predicate of a proposition that is being composed.

²⁴ [maḥsūsāt] . . . [qaḍyā i'tibārīyah].

term [i.e., the subject]²⁵ is called 'inherently necessary'. So by this interpretation, intuitional [knowing] would be more specific [i.e., in its reference] than 'necessity' in an absolute sense [would be], while by the interpretation that was mentioned earlier²⁶ it would be synonymous with [necessity in an absolute sense]. In this division²⁷ intuitive judgmental assent must mean something synonymous with inherent necessity,²⁸ otherwise, the judgmental assent would not be confined within [the categories of] the intuitional and the acquisitional.^{29,30}

Now, since many investigating scholars had treated 'judgmental assent' as [if it were merely] 'judgment [in general]', while [Baydawī] was treating 'judgmental assent' in his division [of the phases of knowing] as 'thinking [conceptually] about something *together with* a judgment passed upon [the conception being formed]' either in denial or affirmation, he gave an example of 'intuitive judgmental assent', namely, [one's] judgment that denial and affirmation could not be joined together [in one statement as both true], nor could they be removed together from [a statement as both untrue]. And he did this in order to draw attention to the fact that 'judgmental assent' [i.e. following a statement of conception] was [being handled simply as] 'judgment' [in general], among one group of scholars.³¹

Further, in his division [of the phases of knowing], [Baydawī] set forth [this] 'judgmental assent' as³² 'thinking about something *together*

²⁵ MS gl: I.e., the attainment of which does not depend on logical reasoning and thought.

²⁶ MS gl (on a partially damaged page): This is where the conviction of the intellect, within the relationship that holds between its two terms [subject and predicate] after a conception of them both has been formed, does not depend upon logical reasoning and thought.

²⁷ L 16 gl: I.e., the author's division of judgmental assent into the intuitional and the acquisitional.

²⁸ L 16 gl: This being the kind the attainment of which does not depend on logical reasoning and thought.

²⁹ L 16 gl: [Isfahani's] statement that it would not be confined is because judgmental assent that is inherently necessary would be, in that case, in another category.

³⁰ In the MS (f. 10b:5) an error by the scribe writing on the repaired page omits the correct words [wa-lamma kāna], while inserting extraneous matter.

³¹ In his book, the *Muhassal* (pp. 20–40, Cairo reprint of 1332 ed.), F.D. Razi discusses 'judgmental assent' [taṣdīq]. But he writes of judgment in general, rather than the particular judgment responding to the need to verify the current stage of the 'intellectual conception' that is in the process of formation. The two-phase knowing process [taṣawwur/taṣdīq] is an ongoing alternation between the two phases in handling the data of perception.

³² The MS inserts here [by mistake, as it appears correctly a few lines below], "as a way of expressing" [ibārah 'an]. In MS Garrett 989Ha the same phrase was inserted here but later was scratched out.

with a judgment passed—of one of the two [alternatives, i.e., denial or affirmation]—upon [the thought so far conceived]. And he did this in order to draw attention to the fact that in his judgment it was preferable to set forth ‘judgmental assent’ as a term for ‘thinking [conceptually] about something *together with* a judgment passed upon [the concept in its process of formation].’

Isfahani’s theory of knowledge

L 16:12 T 8:25

All we [Isfahani] have said is that only a portion of each of these two phases [of knowing], namely, conception and judgmental assent, is intuitional and a portion of each of them is acquisitional. This is because, if it were not so, then the acts of conception and of judgmental assent either

- a. would be all inherently necessary [as an intuition], or
- b. they would be all rationally acquired, and each of these alternatives is impossible.

(a.) We say this of the first option, because if all of the concepts and judgmental assents should be inherently necessary [by intuition], then we would not have lost anything [i.e. of knowledge] from either one; that is, all of them would come about for us without [our giving them] any logical reasoning or thought. But the conclusion is false, because a great many conceptions and judgmental assents do not come about for us without logical reasoning and thought.

(b.) And we say it also of the second option, because if all conceptions and judgmental assents should be by rational acquisition, then we would not have obtained any of them [by acquisition]. But this conclusion is [also] false, because sometimes there are many intellectual conceptions and judgmental assents that we do acquire.

An explanation of the logic here is that matters of logical reasoning are acquired only from other and previously held items of knowledge. So, if all intellectual conceptions and judgmental assents should be by acquisition then the implication would be that all of them would be relying upon something else, either in subject-substrates MS 11a limited in extent, and then a circular argument would be implicit from the inherent necessity that whatever was acquired then would return to its supporting base, L 17 or in subject-substrates unlimited in extent, and then an infinite series argument would be implicit. And both circular and infinite series arguments imply that it would be impossible for us to acquire by rational means any [knowledge]

at all, either from intellectual conceptions or from judgmental assents.

A circular argument would so imply because in that case, our acquiring some particular thing (a) [by reasoning] would depend on [our acquiring] some other thing (b) [by reasoning], [and] that [in turn] would depend on [our already having] the first thing (a); thus, our rational acquisition of any [particular] thing would depend upon [our rational acquisition of] that very thing. This is because thing (a)—being dependent upon thing (b) that [in turn] is dependent upon the [original] thing (a)—would itself be depending upon that [same original] thing (a); and something [not known] that depends upon itself [i.e., for rational disclosure] would be impossible to acquire by reasoning.

An infinite series argument also would so imply [i.e., the impossibility of acquiring knowledge] because in that case,

a. our acquisition of any [knowledge] either by intellectual conceptions or judgmental assents would depend on our having acquired within our intellect something having no limits, T 9 and such an acquisition within the intellect of something having no limits would be an impossibility

b. because it is impossible for the mind to encompass within its comprehension something that has no limits; and anything dependent upon an impossibility would be an impossibility. Therefore, our obtaining [by rational acquisition] any [knowledge], either by way of intellectual conceptions or by judgmental assents, would be an impossibility.

1. An objection had been made³³ against 'intellectual conceptions' [as a phase of knowing] as follows:

a) If what is meant would be the conception of an entity 'in its reality,' then we [the objector] would prefer that all [knowledge] be 'acquired rationally'. Any implication that the argument would be circular or an infinite series in that case would be ruled out, since it would be admissible that the conception of an entity 'in its reality' would be concluded with the acquisition of the conception 'in some aspect.' It could not be said of this that the aspect

³³ MS gl: [I.e., by] Shams al-Din al-Samarqandi [i.e., Abu al-Layth Nasr ibn Muhammad al-Samarqandi, called Imam al-Huda, d. between 373/983-4 and 393/1002-3]. Joseph Schacht's article in *En-I-2* ("Abu'l Layth al-Samarkandi") mentions him as a Hanafi scholar and lists his known books.

[itself] would have [some of the entity's] reality, as [the aspect] would be one of [the entity's] accidents and the accident would have its own reality. The assumption would be that 'conception of the [entity's] reality' would be [something] acquired, and this would imply a circular or infinite series argument. Our position [as objectors] is that the circular or infinite series argument would be implied only if acquisition of the 'conception of an entity in its reality'³⁴ should depend upon the conception of the reality of whoever defined it.³⁵ But this would be ruled out since it would be admissible that the 'conception of the entity in its reality' would be acquired from the 'conception of another entity in some aspect.'

b) But if what is meant is the conception of the thing 'in some aspect,' then we [the objector] would prefer that all [knowledge] be 'inherently necessary' [and thus intuitively known], since everything to which the intellect turns would be a conception 'in some aspect.'

2. There could be another objection raised³⁶ that the intended meaning of 'conception' would be either

a) something more general than 'in its reality' or 'in some aspect,' or that the meaning would be

b) something mixed in that part would be 'in some aspect' and part 'in its reality.'

(a)-a. The answer to this [second objector's] first alternative (a) would be that the 'general' would be in the same category as the 'specific,' and we have shown the falsity of that argument; and

(b)-a. the answer to his second alternative would be that then we [i.e., presumably Isfahani] would prefer that all [knowledge] be 'inherently necessary' [as intuitive].

1.-a. Now, the answer [to Abu al-Layth al-Samarqandi's reasons for objection given above] is that by 'all the conceptions' we mean everything that has been judgmentally assented to as being a more general conception than 'in its reality' or 'in some aspect,' in such a way as to include every MS 11b individual case of a conception L 18 'in some aspect' and every individual case of a conception 'in its reality'. And no inference making this out to be false can be drawn from the fact that each of these two divisions [i.e.,

³⁴ MS gl: As a human being, for instance.

³⁵ MS gl: This being 'a rational animate being.'

³⁶ MS gl: As if in reply to the main objection here.

'in some aspect' and 'in its reality'] has been invalidated when taken by itself apart from the other. Thus, if everything [known] in this sense³⁷ should be inherently necessary [as intuition], then all the individual cases of conception—including every individual case of conception 'in some aspect' and every individual case of conception 'in its reality'—would be inherently necessary [as intuition], so not one bit of knowledge would be lost from any of them. And if everything [known] in this [same] sense should be by [rational] acquisition, then either a circular or an infinite series argument would be implicit.

3. And again an objection has been raised to this [latter point] as well,³⁸ that on the assumption that all [knowledge] would be by rational acquisition then the [very] reasons mentioned as invalidating this division [of knowledge] would be by rational acquisition, so it would not be possible to argue that this division was invalid. This is because then every reason set forth to invalidate this division would be [itself knowledge] by rational acquisition and thus would be ruled out, and then there would be need for another [reason], and implicitly the reasoning would be circular or in an infinite series, so the argument would never be completed.

3.-a. The answer [to this objection] is that the reasons mentioned as invalidating this division [of knowledge] are [already] known to be in the same circumstance, so if they are already known, and the assumption being that everything [known] is by rational acquisition, then [the reasoning of] the argument would be complete and safeguarded from impossibility. Otherwise, the rejection of this assumption would be implied, because it would require the contrary of what [already] exists in the same circumstance.³⁹

4. So then, if an objection should be raised⁴⁰ not granting that if [some fact] should not be something already known then the implication would be that this assumption [i.e., that all knowledge is by acquisition] would be denied.

³⁷ MS gl: I.e., in the sense of being 'more general.'

³⁸ The MS and MS Garrett 989Ha insert here "to this point" ['alayhi].

L 18 gl: This objection is directed only to 'acquisition', not to 'intuition', and seems to be applied to 'judgmental assent'.

³⁹ MS gl: And everything that requires the contrary of what is evident in the same circumstance is to be denied, so this assumption would be denied; and so the goal of the logic is established, namely, to deny that everything [known] would be by acquisition.

⁴⁰ Reading with T, which adds "So if . . ." [fa-in qīla].

4.-a.1 [Baydawi's] statement [answering such an objection] is [that the assumption would be denied] "because it requires the contrary of what is in the same circumstance." But our [Isfahani's] position does not grant that [the assumption] would require the contrary of what is in the same circumstance. That would be required only if an exclusion of known evidence should be a concomitant of this assumption, but that would be ruled out.

4.-a.2 The answer [that is proper for this possible objection] is that these reasons are known to be in the same circumstance. Thus, if this assumption should be true and active in the same circumstance, then it would be true and active along with the fact [of the reasons] being known; because whatever would be true and active in the same circumstance would be true and active along with all the matters true and active in the same circumstance. Therefore, [the reasoning of] the argument would be completed and safeguarded from impossibility. If it should be otherwise, then it would imply [the correctness of] the goal of our logic, namely, the denial that everything [known] would be by [rational] acquisition in the same circumstance.

4.-a.3 It is possible to answer this objection from another aspect, this being the objector's position that if everything [known] were by rational acquisition, then the reasons mentioned to invalidate [his position also] would be by rational acquisition, if by [his position] he meant that [the reasons] should be by rational acquisition in the same circumstance. This [meaning of the position] would be ruled out, because the assumption that everything [known] would be by rational acquisition does not imply that everything [known] would be by rational acquisition in the same circumstance, and thus the argument would be complete. And, even if [the objector] should mean by [his position] that [all things] would be [known] by rational acquisition MS 12a according to the assumption, then we would grant that, but the argument would depend on whether all these things were knowable in the same circumstance, not on their not being by rational acquisition according to this assumption.

5. An objector L 19 might hold that it should not be granted that the infinite series argument would be impossible for this form [of the argument].⁴¹ Your position [i.e., a disputant addressing Isfahani]

⁴¹ MS gl: I.e., the form [of statement] in which everything [known] would be by acquisition.

is that it would imply that the mind should comprehend what is without limit; and that is the impossibility.

Our [Isfahani's] position is that if you [the disputant] mean by this that it implies the mind's comprehension of what has no limit by way of an endless succession, then in that case the implication [i.e., of impossibility] is granted, but the impossibility of it is ruled out.⁴² But if you mean by it that the mind's comprehension of what has no limit would be all at once, then the impossibility of it is granted, but any such implication is ruled out. Indeed, all the things that have been learned earlier have been preparatory to those that follow.⁴³ There is no necessity for preparatory causes to continue together with their results, because a preparatory cause passes away when the caused result is present.

Let no one say, "We can demonstrate by another means that it is impossible for the mind to encompass what has no limit." This other means would be that the [knowledge arrived at as] the conclusion⁴⁴ would depend upon the movement of thought, and the movement of thought would not take place except within a time-duration. Thus, if the mind should encompass something having no limit, it would depend upon the termination of a limitless number

⁴² MS gl: Because, assuming that the soul is eternal, it is admissible that it would gain comprehension of matters that have no limits by following them up successively through endless time durations in the past.

⁴³ The MS alone of sources used reads, [al-muqaddimāt al-lāḥiq]. However, this is one of the repaired and recopied sections of the MS. Leaves 1-24 of the MS suffered damage to the text portion at the inner margins.

Al-Sayyid al-Sharīf al-Jurjānī, in his *Ta'rifat*, defines "preparatory [arrangements]" [mu'addāt] as "a term for that upon which something depends." It is a general category that in the present context would include premises in an argument, or the partial development of a general or particular science that would support later advances in knowledge. It would also be equipment prepared for specific activities.

⁴⁴ L. 19 gl. 3. [Al-Sayyid al-Sharīf al-Jurjānī later repeated and enlarged upon this idea in his "Marginal Glosses" [*Hashiyah*] upon Isfahani's Commentary]: The conclusion depends upon intelligible propositions derived [by rational acquisition], and these have no limit. Each one of these intelligible propositions, that are rationally acquired and that proceed without limit comes about only through thinking [al-fikr]. Now, thinking is a movement that takes place only within a time-duration; thus, each one of the intelligible propositions rationally acquired and proceeding without limit would be within a time-duration. Therefore, the conclusion [of the process] would depend upon the termination of an endless number of time-durations, which would be impossible since the time-duration from the beginning of the soul's existence is a limited factor.

Now, if an objection should be raised—to the effect a) that the time-duration from the beginning of the soul's existence would be limited by implication only if

of time-durations, which would be impossible because the time-duration from the beginning of the soul's existence is a limited factor. In such a case our position would be that [that argument] would depend upon a clear explanation of the falsity of metempsychosis and of the soul's temporal nature, and thus it would entail an explanation of something clearly comprehensible being based on [an explanation of] something difficult to comprehend.

5.-a. In refuting this division [of the argument], it is preferable to argue that, if 'conceptions' and 'judgmental assents' in their entirety T 10 should be by rational acquisition, then not one thing would have come to us from these two processes except by logical reasoning and thought. But this conclusion is false, for many things do come to us from 'conceptions' and 'judgmental assents' without logical reasoning and thinking.

Baydawi said:

L 19, T 10

2. *Logical reasoning: the means of the rational acquisition of knowledge*

Logical reasoning is the process of arranging⁴⁵ entities that are known in a way that leads to learning something that is not already known. If these entities so organized should be a) conducive to forming a

[the soul] should be a temporal phenomenon, but b) that this implication would be ruled out because 1) of the admissibility that the soul could be eternal, and 2) that prior to this body it would have been linked to another body, and so on without end in the manner of metempsychosis,—then the reply would be that it has been established by demonstrated proof A) that the soul is a temporal phenomenon, and B) that metempsychosis is a falsehood.

Our position [i.e., that of al-Šarīf al-Jurjānī] is that in that case to explain the impossibility of everything known being by acquisition would depend upon making it clear a) that the soul is a temporal phenomenon, and b) that metempsychosis is a falsehood. And these latter two points are difficult to comprehend, while to explain the impossibility of everything known being by acquisition is a clearly comprehensible point. Therefore, the implication is that to demonstrate the falsity of something clear and obvious would require the use of something very difficult to comprehend.

⁴⁵ L 19 gl 5; This arrangement comprises [Aristotle's] four causes. These are: the effective [cause] [al-fā'il], the material [al-māddah], the formal [al-šūrah], and the final [al-ghāyah]. Since the 'arrangement' indicates an 'arranger', that is the 'effective' [cause]; the known entities of which the arrangement is actually made are the 'material' [cause]; the arrangement itself is the 'formal' [cause]; and the process of seeking [istī'lām] what is not known is the 'final' [or, 'purposive' cause].

'conception', then they would be called a "definition" or a "statement of explanation", and if they should be b) conducive to 'judgmental assent' then they would be called an "argument" or a "proof demonstration."

Isfahani says:

L 19, T 10, MS 12a

2. *Logical reasoning: the means of the rational acquisition of knowledge*

a. After having stated that intuitional [knowing] has no need for logical reasoning and systematic thinking, Baydawi needed to define logical reasoning and thinking. The term 'thinking' is used with a number of meanings.⁴⁶

[Source is coded simply *Shark*. This is likely to be Jurjani's glosses on Isfahani's commentary.

A modern scholar notes: "For Aristotle, to know is to know by means of causes, and it is clear that the four Aristotelian causes are necessary elements in things, which must be known or understood if full understanding is to be reached, rather than causes in the modern sense."

Paul Edwards, Ed. in Chief. *The Encyclopedia of Philosophy*. (New York: Macmillan, 1967), s.v. "Aristotle" by G.B. Kerferd.

In his *Isharat* (Teheran, 1984; v. 1, pp. 8–17), Ibn Sina speaks of 'logic' [mantiq]: "What is meant by 'logic' is that a person has available an instrument for [mental] regulation the use of which will prevent going astray in one's thinking. By 'thinking' here I mean what is available for people in general—[here N.D. Tusi lists in his commentary on Ibn Sina the three kinds of thinking, as found incorporated in Isfahani's following commentary on this passage]—when there is a transition from matters that are present in mind (whether as a 'conception' [taṣawwur] or as a 'judgment of verification' [taṣdīq], which itself may be by knowledge or by supposition or by convention and acceptance) to matters that are not present in [mind]. This transition never takes place without there being [both] a syllogistic arrangement of the information in hand and a syllogistic structure. That syllogism and its structure may be set up correctly or it may be set up incorrectly. Many times the incorrect way will resemble what is correct, or it may [only] seem to resemble what is correct. Logic then, is a [body of] knowledge in which one learns the various [methods of] transition from items [of knowledge] that are available in a person's mind to [other] items [yet] to be obtained."

F.D. Razi, in his *Muhassal* (pages 40 and 49) treats 'logical reasoning' and 'systematic thinking' under the heading 'distinguishing properties of logical reasoning', but uses identical definitions in the subheadings for each topic: (1) "Logical reasoning [al-naẓar]/(2) Systematic thinking [al-fikr]—is the arrangement of judgmental statements [taṣdīqāt] so as to arrive by them [yatawaṣṣal bihā] at other judgmental statements."

⁴⁶ The commentary on Ibn Sina's *Isharat wa-tanbihat* that Nasir al-Din Tusi [1201–1274] wrote and called. *Hall mushāhāt al-Isharat* is quoted nearly verbatim by

1. One [meaning] is that [thinking] is a movement of the [reasoning] soul by means of the power⁴⁷ whose instrument⁴⁸ is the anterior convolution inside the brain,—whatever movement it may be—as long as that movement is among the intelligibles; but if it should be among the physical sensations, then it would be called ‘imagination’. This power is single, but with reference to the first [class, i.e., the intelligibles], it is called ‘thinking’, and with reference to the second [class, i.e., the physical sensations], it is called ‘imagination’. This [intellectual] movement takes place within the category of quality. So, just as the movement in [the category of] quality takes place among the physically sensate qualities, MS 12b it likewise takes place among the psychological [non-sensate] qualities of the [reasoning] soul, in that a representation L 20 is made within the soul of the inward stores⁴⁹ item by item whenever attention is given to them. And there is no doubt that the [reasoning] soul speculatively considers these entities when its attention is directed there. This movement [among ‘intelligibles’] constitutes ‘systematic thinking’, while the speculative consideration constitutes ‘logical reasoning’. Because of their mutual concomitance to each other,⁵⁰ the name of the one is applied to the other, and they both serve in a synonymous function.

2. Sometimes the term ‘thinking’ is used in a second sense, more particular than that just mentioned, being a movement of the [rational soul among the intelligibles,

- a) beginning from the ‘conclusion’ [i.e., the logical goal],
- b) searching out and reviewing the quiddities⁵¹ that are present among [the intelligibles],
- c) and aiming [ahead] toward premises that will lead on to [the conclusion], until
- d) the [rational soul] finds the needed [quiddities], which it then
- e) arranges [into a syllogism], and thus

Isfahani [1276–1348] as the first sentence in each of the three meanings that follow [v. 1, pp. 10–11 of the 1984 Teheran ed. of the *Isharat* with Tusi’s commentary.

⁴⁷ MS gl: I.e., an executive power [al-qūwah al-mutašarrifah].

⁴⁸ MS gl: I.e., whose substrate [maḥall].

⁴⁹ MS gl: I.e., the intelligibles [ma‘qūlāt].

⁵⁰ MS gl: [I.e.,] of [naẓar] and [fikr].

⁵¹ [ma‘ānī] The ‘quiddities’, or, abstracted essences having an identified ‘whatness’ and being present in the situation, may serve also as ‘causal factors’ in the purpose of the logical ‘thinking’ that is going on.

f) returns from them back to the conclusion, [the logical goal].

'Systematic thinking' in this [purposive syllogistic] sense is the format upon which all the rationally acquired sciences are arranged.⁵² The 'speculative consideration' of quiddities that are present when searched out for review in the way mentioned is called 'logical reasoning'. Moreover, sometimes one term is used for the other [i.e., 'systematic thinking' and 'logical reasoning']. Thus, it is as if⁵³ [Baydawi] observed and pointed out⁵⁴ the differentiation between the two meanings, and then joined them together.

3. Again, sometimes 'thinking' [in the sense of 'systematic thinking'] is applied [only] to the [intellectual] movement from the 'conclusion' [as the logical goal] to the premises, but without including in [the movement] the return from [the premises] back to [the concluding goal].

Now, since the rationally acquired sciences are dependent upon 'thinking' in the second sense [above], and the syllogism as arranged in the special manner is an obvious concomitant of [this systematic thought], Baydawi descriptively defined [systematic thinking] in terms of [the syllogism]. The syllogism consists in setting up a plurality of entities in such a way that the name of one may be applied to [a group of] them, and between each of these things and each one of the others there is a relationship of precedence or subsequence in their placement ranking within the intellect.⁵⁵ So, the syllogistic arrangement is more specialized than an [ordinary] composition, because in an ordinary composition this relative placement ranking would not be regarded.

On Baydawi's definition of logical reasoning

By his term 'entities', Baydawi means two or more entities. His phrase '[entities] that are known',—that is, 'intellectually conceived'

⁵² T, in error: [al-ma'lûm al-kashbiyah], L & the MS [al-'ulûm al-kashbiyah].

⁵³ Reading with the MS, MS Garrett 989Ha and MS Garrett-Yahuda 4486: [ka-anna]. L and T read: [kāna al-muṣannif].

⁵⁴ On a repaired and recopied page portion here the MS reads: [ashāra], while L & T & MS Garrett 989Ha read [naẓara].

⁵⁵ Regarding this definition of the syllogism, Jurjani's *Ta'rifat* [Fluegel ed., Leipzig, 1845, reprinted, p. 57, l. 16-17.] provides a near verbatim quote, probably by Jurjani [1340-1413] from Isfahani [1275-1348], as the latter preceded; or, both writers may have quoted from some older source.

or 'judgmentally assented to' as a judgment of conviction or otherwise,—[is used] in order to deal with the logical reasoning actually taking place [both] in conception formation and in the judgmental assent that includes conviction, formal belief, and supposition.

His expression, "in a way that leads to learning something not already known", is used to make the definition⁵⁶ apply specifically [both] to logical reasoning and to systematic thinking in the second sense [i.e., capable of arrangement in a syllogism]. This definition takes into consideration [Aristotle's] four [kinds of] causes: material, formal, effectual, and final. In defining the four causes there is no intention to make the four causes themselves into definitions, for there would be no valid necessity MS 13a to apply a definition to something already defined when the causes would not be true of [what was already defined]. But rather, the intention is that the definition should be made [of things] predicable of the thing to be defined while taking these causes into consideration. So then, a definition would define a compound entity with regard to its existence,⁵⁷ L 21 because an entity that is not compound cannot be conceived as having material and formal causes, and a nonexistent entity cannot be conceived as having effective and final causes. Therefore, the definition would be a descriptive one, because things predicated of the entity with respect to the causes would be predicated with regard to things that are external to the entity, and things predicated with regard to external matters would not concern the essence; thus the definition would be descriptive.

[Baydawi's] expression, "the process of arranging entities that are known", is a specifying phrase that is derived from a 'material' [cause, as well as from those that are] 'formal' and 'effective.' Of these, one of them, the material [cause], is mentioned as being directly applicable, while the other two would be [applicable] according to [their] engagement [i.e., in the matter].⁵⁸

And again, [Baydawi's] expression, "in a way that leads to learning something that is not already known", is a specifying phrase derived from a 'final' cause.

⁵⁶ MS gl: i.e., the definition of logical reasoning and systematic thought.

⁵⁷ MS gl: i.e., its existence in the mind [wujūduhu al-dhihnī].

⁵⁸ L 21 gl: His expression, "the other two would be [applicable] according to their engagement [i.e., in the matter]": since every sort of arrangement must have an arranging agent, namely, an intelligent power, as a carpenter is to a bedstead [sarīr].

[Continuing from Baydawī] "If these entities so organized should be
 a. conducive to forming a conception, then they would be called a 'definition' or an 'explanatory statement', and if they should be
 b. conducive to judgmental assent then they would be called an 'argument' or a 'demonstration'." The former [i.e., forming a conception] would be like [the definition] "a living being that speaks", that would lead to forming a conception of 'mankind'. The second [i.e., judgmental assent] would be like when we say, "The world is a possible entity, and everything that is a possible entity has a cause", [a saying] that leads to a judgmental assent to [the correctness of] our saying, "the world has a cause".

The author [Baydawī] put 'explanatory statement' before the 'argument' in the setting of his exposition—because of its natural precedence to the argument—in order to have it correspond with the natural order. Natural precedence [of A to B] is as when one entity-A is such that another entity-B⁵⁹ depends upon A, but A has no effect upon B. For example, one precedes two, and indeed, 'two' depends upon there being a 'one', but the 'one' has no effect upon [the 'two'].

The 'explanatory statement', in relation to 'argument', is similar because the 'explanatory statement' would be a little earlier than the 'conception', while the 'argument' would be a little earlier than the 'judgmental assent'.

Moreover, 'intellectual conception' precedes 'judgmental assent' naturally. This is because every T 11 judgmental assent depends upon (1–2) the conception of [judgmental assent's] two terms⁶⁰ and upon (3) the conception of the combination of the two, as it is inherently impossible to form a judgment while being ignorant of any one of these three [subordinate conceptions]. But these [subordinate preliminary] conceptions do not have any effectual causality upon the judgmental assent.

⁵⁹ The reading in L is not complete; T: [ghayr]; the MS and MS Garrett 989Ha: [ghayruhu].

⁶⁰ MS gl: I.e., 1) conception of its subject and 2) conception of its predicate.

CHAPTER 2: EXPLANATORY STATEMENTS

1. *Conditions that govern a definition*

An 'explanatory definition' of some thing is [a statement]¹ the understanding of which necessarily brings about an understanding of that thing. Thus, a knowledge of [the explanatory definition] would precede the knowledge of [the thing] defined.

Thus, a thing cannot be defined

a. by way of [a definition] equal to it in clarity or obscurity,—as has been said, "An even number is not an odd number";—nor [can it be defined]

b. by way of itself,—as when [some disputant] says, "Movement L 22 is a transition", or "Man is a human living being";—nor [can it be defined]

c. by way of [a definition] more obscure than itself.

[This latter statement is true] equally whether

1. knowledge of the entity depends on [a definition removed] in only one degree,—as in the definition of the sun as "a star of the daytime", and in the definition of the daytime as "the time period when the sun is up [in the sky]";—or whether

¹ In the "Book of Definitions" [*Kitāb al-Ta'rīfāt*] by 'Alī ibn Muḥammad, al-Sayyid al-Sharīf, al-Jurjānī [1339–1413] [Flügel ed., reprint of Leipzig, 1845; Beirut, Maktabat Lubnan, 1978] are the following definitions:

[mu'arrif]: "That [statement] the conception of which necessarily brings about the acquisition in [one's] understanding of a conception of the object entity, both in its core nature and in its distinctiveness from all else; thus the definition comprises both 'definition by less than absolute delimitation' [al-ḥadd al-nāqis] and 'description.'"

[ta'rīf]: "A term for a statement about an entity; and the understanding of this statement necessarily brings about an understanding of another entity [like the first]."

In the former 'definition' [mu'arrif] there is an emphasis more on the dynamics of knowledge formation and transfer as a 'process'; while in the latter the 'definition' [ta'rīf] seems confined to being only a label that is read and understood. In this chapter we will try to be consistent in translating [mu'arrif] as an 'explanatory definition', or as 'definer', or as 'defining agency'. The term [ta'rīf] will be translated 'definition'.

2. [this knowledge would depend on a definition removed] in several degrees,—as when ‘two’ is defined as the “first even number”, and then ‘even number’ is defined as “a number divisible into two equal parts,” and then ‘two equal parts’ is defined as “two things, neither of which is more than the other”, and then [finally] the definition of them both as “two”; or whether

3. [this knowledge] is not dependent at all,—as when ‘fire’ is defined as “a basic principle resembling the soul.”

[In an explanatory definition] precedence should be given to a term that is more general because of its familiarity and its clarity. Further, unusual and metaphorical expressions as well as repetitions should be avoided,—as when someone might say, “A number is a plurality of units brought together”, or, “Man is a living being who is corporeal and speaks rationally.” [This would be true], unless, of course, either

a) an inherent necessity should require [definition in this way], as when defining two mutually adjunctive entities,—for example, “A father is a living being from whose seed another individual of the same species is generated”,—wherein [necessary repetition] would be the case; or

b) some other need [should require it], as when people say, “A flattened nose is a hollowed out nose”, that kind of ‘hollowing out’, being done only on the nose.

Isfahani says:

L 22, T 11, MS 13a

CHAPTER 2: EXPLANATORY STATEMENTS

In Chapter 2 Baydawi set forth three topics: MS 13b

1. The conditions that govern a definition; 2. The classes of definitions; 3. Realities definable and definitive.

1. *Conditions that govern a definition*

a. An explanatory definition of some thing is a statement the understanding of which necessarily brings about an understanding of that thing. The expression, ‘an understanding of that thing’, here is meant to be an understanding that is more general—than either the understanding obtained from a delimiting definition or the understanding

obtained from a descriptive definition,²—in order that this [single explanatory] definition should deal with both of these [particular kinds of understanding].

However, according to this explanation [of what constitutes a definition],³ the implication is that an object defined either by 'delimitation' or by 'description' would [itself] serve as an 'explanatory definition' for both the 'delimiting definition' and the 'descriptive definition' [respectively]. This is because it would be valid to say—of an object 'defined by delimitation' or 'defined by description'—that an understanding of [each of] these aspects necessarily would bring about an understanding of what constitutes either a 'delimiting definition' or a 'descriptive definition', respectively.

[This would be true], unless, of course, if by [the phrase] 'necessarily would bring about', there is meant the kind of 'necessary influence' that a cause has upon its effect, but not the reverse. However, 'a requirement of logical necessity' is something more general than 'the necessary influence of a cause upon its effect', as well as the reverse. And further, a 'generality' does not have the logical capacity to give demonstrative proof for a 'particularity'.

It has been said that an 'explanatory definition' of some thing would be a statement the understanding of which would be the logical cause for the understanding of that thing. But this [definition] is regarded as sound only by one who admits the legitimacy of definition by a single factor,⁴ while for anyone who would not admit the legitimacy of definition by a single factor this definition would

² Delimiting def. [al-ta'rif al-ḥaddī]/descriptive def. [al-ta'rif al-rasmī].

³ L 22, gl 4: No one should say that 'understanding an object defined by delimitation' does not exist until after 'understanding the delimiting definition [itself]', as otherwise, the object would not be an 'object defined by delimitation'; so in that case the 'understanding of the delimited object' would not bring about the 'understanding of the delimiting definition' because '[the understanding of the delimited object]' would be known already before '[the understanding of the delimiting definition]'.

Our position is that for 'entity-a' to require logically the existence of 'entity-b' it is not necessary that ['the understanding of entity-a'] should exist prior to ['the understanding of entity-b'], but rather it is admissible that ['the understanding of entity-a'] should be dependent upon ['the understanding of entity-b']. For example, the 'understanding of a whole entity' is dependent upon ['the understanding of] every one of its parts'; and thus, 'the understanding of [the former whole entity]' logically requires 'the understanding of the latter entity's every part'. [From a *Commentary* [sharḥ], presumably that of al-Sharīf al-Jurjānī upon 'Adud al-Dīn Ijī's *al-Mawāqif fī 'ilm al-kalam*.]

⁴ L gl: As when we say that 'man' is 'a laughing being' [al-insān al-ḍāḥik].

not be valid⁵ L 23 because it lacks any common and regular usage. However, it would be valid indeed for [defining] a specific concomitant property, some thing clear and simple, the understanding of which would be a logical cause for understanding an entity having that property.

The truth of the matter is that a definition would not be valid by way of a single factor, because an entity the conception of which is being sought by logical reasoning must be conceived by any means whatsoever; otherwise, the search for it would be impossible. So there would have to be some [preliminary] conception that would be useful in forming a 'goal concept'. But that 'goal concept' would be something other than the [preliminary] 'conception by any means whatsoever'. However, the [preliminary] 'conception by any means whatsoever' has a role leading into the 'goal concept'. Therefore, a [mental] realization of both these conceptions is necessary in formulating the goal concept. So the goal concept actually would not be formulated by using a single factor, because the agency actually formulating the goal concept would be a composite.

Therefore, an explanatory definition of some thing is an explanatory statement the conceptual understanding of which provides what is useful in formulating a conception of the thing [itself]. And so from [this explanatory definition] there is deduced the evidence [for the goal concept of the thing].

1. An objection has been raised that, if the [1st] 'definer' should need a [2nd] definer, then the argument would be an infinite series. But this conclusion would be false. An explanation of the inherent logic here is that if the [1st] definer should have need for a [2nd] definer, then this [2nd] definer of the [1st] definer would [in turn] need another [3rd] definer, and the argument would be an infinite series. Furthermore, if the [1st] definer should have a [2nd] definer, then implicitly the [two of them] would be equals, as a stipulated condition for [being] a 'definer' is that [the 'definer'] should be the equal of what is 'defined'. But in fact, the [2nd] is [really] more specific than [the 1st], as [the 2nd] would be a 'specific definer' by the inherent logical necessity of its being the [2nd] definer of a [1st]

⁵ Reading with the MS, MS Garrett 989Ha and MS Garrett-Yahuda 4486: [man lam yujawwiz . . . fa-lā yaṣihh hādhā al-ta'rīf]. The scribe of L has plainly overwritten [yaṣihh] to read [yujawwiz], and this changed reading was followed by the editors of T.

definer. So there would be no MS 14a validity in a definition by its means.

1.-a. The answer to the first [objection]⁶ is that the [2nd] definer of the [1st] definer would be classified as subordinate to the 'absolute [1st] definer', as being a [2nd] definer, and [this 2nd definer] would be differentiated from all other definers by its adjunction to the 'absolute [1st] definer'. So, if we should understand the absolute nature of the [1st] definer, then necessarily there would be an understanding of its [2nd] definer, as being a [2nd] definer. Furthermore, [the 2nd definer's] adjunction to the [1st] definer would be a well known fact wherever there was an understanding of the two adjoined terms; thus, in its totality [the 2nd definer] would become well known, so [the 2nd definer] would have no need for another [i.e., a 3rd] definer.

2. [A second] objection has been raised that this [reply] requires consideration, because the totality,—a composite of the [1st] definer together with its adjunction [the 2nd definer],—would be a definer by way of two parts, the [1st] definer and the [2nd definer] adjunction. But the fact that the two parts [1st and 2nd definers] would be well known in a potential sense would not imply that they both as a totality would not have need for another [3rd] definer.

2.-a1. The real answer [here] is that this infinite series argument would be an infinite series in matters of mental consideration, and it would cease with the cessation of the intellect's consideration [of it]. Sometimes the intellect will consider the [2nd] definer of a [1st] definer from the standpoint of its being a [2nd] definer, and from this standpoint an understanding is gained of the [1st] definer.⁷ And according to this consideration there would be no need for a [3rd] definer, [so the argument would come to an end]. But sometimes the intellect will turn its attention to itself and observe itself L 24 for what it is, and it will have need for a definer. But the intellect will not keep this aspect [of itself] under consideration continuously, so the infinite series ceases with the cessation of the intellect's consideration T 12 of this aspect.

2.-a2. But the [formal] answer to the second objection is that it would be admissible for an entity, with regard to its own essence,

⁶ MS gl: I.e., regarding the infinite series.

⁷ MS gl: That is, the definer [1st] in an absolute sense.

to be equivalent to another entity, and with regard to any one of its own accidental qualities, to be more specific than [the other entity]. The [2nd] definer of a [1st] definer would be a case like that, for in consideration of its own essence [the 2nd] would be equal to the [1st] definer,⁸ while in consideration of its being a specific definer,⁹ [the 2nd] would be more specific than [the 1st is]. That is to say, it is in consideration of the fact that [the 2nd] is a 'definer', that it is [therefore] equivalent to a definer; [its equivalency] is not in consideration of the fact that [the 2nd definer] is more specific than [the first is]. Now, an understanding of the 'definer' of some thing must precede an understanding of the thing that is 'defined', because knowledge of the 'definer' is a cause of knowledge of the 'defined' thing, and a cause precedes the caused effect. And if knowledge of the 'definer' precedes knowledge of the 'defined' thing, then the former must be much clearer than the latter.

b. [Thus, definitions are governed by the following conditions, as given by Baydawi.]

1. It is not valid to give an 'explanatory definition' of some thing in terms that would be no better than equal to it, whether in clarity or obscurity. That is, whatever would be presented as a 'definer' the case would be such that, if [the 'definer'] should be understood, then the 'defined' [entity] would be understood, but if [the 'definer'] should be something unknown, then [the 'defined'] would be unknown. An example of this is when someone says, "An even number is not an odd number", for an 'odd number' is equal to 'even number' in [degree of] clarity and obscurity.

2. Nor is it valid to give a definition of a thing by way of itself. Otherwise, the implication would be that knowledge of itself would precede MS 14b knowledge of itself, and that would imply that a thing would precede itself. [This is true] equally whether the 'definer' is presented as only the same as the 'defined', as when disputants may say that 'motion-change', that is, locational [movement], is 'to be in transition', or whether [the 'definer'] is presented as the same as the 'defined' plus something more, as when people say, "Man is a human living being." The former is an example of [definition by way of] an accidental quality ['to be in transition'], while the latter is an example of [definition by way of] the substance.

⁸ MS gl: I.e., the absolute definition.

⁹ MS gl: I.e., the definer of a definer.

3. Nor is it valid to give a definition of a thing by way of what is more obscure than [the thing itself], equally whether the greater obscurity is or is not dependent upon the 'defined' thing [itself].

a) If [the greater obscurity] should depend upon [the defined thing] and be [distant] in only one degree, then [the definition] would be an obvious circular argument; but if [the greater obscurity should depend upon the defined thing] and be [distant] in more than one degree, then [the definition] would be an obscure circular argument. If the dependency upon the defined thing should be [distant] in one degree, then it would be like a definition of the sun as 'the daytime star', followed by a definition of the 'daytime' as 'the time period when the sun is visible above the horizon'.

b) But if the dependency [upon the defined thing] should be [distant] in more than one degree, then it would be like the definition of 'two' as 'the first even number', followed by a definition of the 'even number' as 'a number divisible into two equal parts', followed by a definition of the 'two equal parts' as 'two entities neither one of which exceeds the other', followed by a definition of the 'two entities' as 'two'.

c) A definition by way of something more obscure [than the 'defined'] but having no dependence upon the thing 'defined' L 25 would be as when someone might say, "Fire is a basic element resembling the soul", the soul being more obscure to the intellect than fire.¹⁰ But knowledge of the soul does not depend upon a knowledge of fire.¹¹

c. [A defining factor having] more of a general nature should take precedence in the formulation of a definition. This is because of its familiarity and clarity, since the conditions required of a more general term and its exceptions¹² are fewer than the conditions required of a more specific term and its exceptions.¹³ Everything that is a

¹⁰ MS 14b glosses: 1. Because fire is perceived by the senses, while the soul is not.

2. An aspect of resemblance between them is that they are both continually in motion, but fire is in locational [makānīyah] motion while the soul is in intellectual [fikrīyah] motion. And it has been said that the resemblance is in the subtle fineness [laṭāfah] [that they have in common], and this is based on the notion that the soul is a body subtle in fineness.

¹¹ L 25 gl: Because it [the soul] is something abstract [min al-mujarradāt], while fire is sensate [min al-maḥsūsāt], and knowledge of it is easily acquired.

¹² MS gl: I.e., trees, stones and plants.

¹³ MS gl: I.e., horses, sheep and cattle.

condition or an exception for what is more general [also] would be a condition or an exception for what is more specific, but the reverse is not true. Further, there is no doubt that an entity having few conditions and exceptions would be more frequently in the intellect, and thus it would be clearer and more familiar to the intellect. And what is clearer to the intellect should take precedence because the learner would perceive it first, and then would move on to what is more specific.

1. An objection has been raised that a more general term should precede in complete delimiting definitions only because what is more general in them is the genus, and that logically indicates something that is indefinite and unattainable in its individuality.¹⁴ But this [individuality] is obtained by [a defining factor] that is more particular, this being the 'individual difference'. If the genus should not take precedence, then 'the formative part' [or, 'the defining factor'] in the delimiting definition would be defective, and it would not be complete and inclusive of all of its parts. But in any other than a complete delimiting definition, it is preferable to give precedence to what is better understood,¹⁵ although this is not obligatory.

1.-a1. However, this requires consideration, for all of the essential parts in a complete 'delimiting definition' amount to no more than the proximate genus and the proximate difference, and this interpretation [of the matter] is verified equally whether the genus is made to precede MS 15a the difference or it is made to come after. And the precedence of the genus over the difference would not constitute the 'formative part' [or, 'defining factor'] of a complete delimiting definition in [external] reality. That is because the precedence of the genus over the difference is an adjunctive relationship made accidental to the genus as compared to the difference, and an 'adjunctive relationship' made accidental to one thing¹⁶ in comparison to something else¹⁷ would come after them both, and would be dependent upon them both. Thus, it would not support

¹⁴ The MS and MS Garrett 989Ha read, "in itself" [bi-nafsihi], which might possibly be taken to mean, "by its own causation." L and T read, "in its individuality" [bi-'aynihi], more clearly providing the intended sense.

¹⁵ MS 14b gl: [I.e.], this being the more general; and it is only called the "better understood" because it is more often present in the intellect.

¹⁶ MS gl: [I.e.], genus.

¹⁷ MS gl: [I.e.], difference.

the quiddity of either the genus or the difference, nor would it support their existence either as a single mental totality, or their existence separately. Therefore, it would not be a 'formative part' [or, 'defining factor'] for a complete delimiting definition.

Let no [opposing disputant] say [to us] that what [we] have stated means that the precedence of the genus over the difference would not be a 'formative part' [or, 'defining factor'] of the genus and of the difference. Nor is there any implication that it would not be a 'formative part' of a complete delimiting definition. For it is admissible that a complete delimiting definition would have matter that would be the genus and the difference, and [would have] form that would be the precedence of the genus over the difference.

1.-a2. That is because we would answer [the opponent] that the 'complete delimiting definition' is an expression for 'all the essential parts' [i.e., substantial and formative] of the entity being defined, and that this definition corresponds to the object; so whatever would not be a part of the real nature of the entity thus delimited would not be a part of its complete delimiting definition, while whatever is part of the complete delimiting definition would be a part of the entity delimited. The precedence of the genus over the difference is not part of the entity defined, so it would not be part of the complete delimiting definition; otherwise, it would be part of the entity delimited. L 26 The term 'formative part' is applied to the precedence of the genus over the difference in a metaphorical sense, and the necessity of making the genus precede the difference does not imply that [the genus] would be a formative part of it,¹⁸ because it is admissible that [the genus] would be a required condition.

And likewise, neither the necessity to make the genus precede the difference in regard to the inference it makes, nor the necessity to make the difference precede the genus in regard to the occurrence [of the genus]¹⁹ makes any requirement that the precedence of the genus over the difference in the first of these two considerations or the precedence of the difference over the genus in the second of them should be a 'formative part' of the quiddity that has its subsistence in them both.

¹⁸ The MS omits "of it."

¹⁹ MS gl: Because the individual difference makes [yuhassil] the genus stand forth.

The truth is that the general term should precede the particular term in [all] explanatory definitions, equally whether the general term is a genus²⁰ or an accidental quality,²¹ and equally whether the particular term is an individual difference²² or a property.²³ [This is] because the particular term T 13 provides the [factor of] distinction, and the distinction is not attained until after there has been participation [i.e., in a commonality of meaning], for there would have to be a consideration of the commonality [of meaning]²⁴ first, in order to form a conception of the [factor of] distinction.

d. Moreover, in formulating definitions one should avoid

1. terms that are unusual, MS 15b that is, those words whose use is not well known or that vary [in meaning] from population to population, and that are matched by ordinary words, and

2. terms that are used metaphorically, that is, terms used in senses that are not conventional, because of some connotation between them, since these terms need examination and clarification, so the need for one explanatory statement would require [in turn] another explanatory statement. Further, in formulating explanatory definitions one should avoid the [kind of] repetition for which there is no inherent necessity or need, equally whether the repetition would be

3. the delimiting definition itself, as if someone should say, "Number is a plurality formed of units gathered together", when "formed of units gathered together" is the 'plurality' itself; or whether [the repetition] is [only]

4. one of the parts of the delimiting definition, as "Man is a living, corporeal and rationally speaking being." In the delimiting definition of a 'living being' there is understood the notion of 'body', as when [the 'living being'] is said to be "a body with a sensate [reasoning] soul and moving of its own will." For then the [term] 'body' is repeated, this being one of the parts of the delimiting definition of 'man'.

Regarding repetition that is on account of some inherent necessity, that is the kind [of repetition] that, if it should not in fact take place, then the definition would not remain true. [This is], for example,

²⁰ MS gl: As a rationally speaking living being.

²¹ MS gl: As a walking, rationally speaking being.

²² MS gl: As a rationally speaking being [al-nāṭiq].

²³ MS gl: As a laughing being.

²⁴ As in the consideration of synonyms.

repetition that takes place in the definition of two mutually adjunctive words that are indeed together both in one's thinking and in [external] existence, as 'fatherhood' and 'sonship'. Indeed, it cannot be affirmed that one of them certainly exists unless there is [that] certainty for the other; likewise, neither one can be thought of²⁵ unless thought is given to the other [also].

Therefore, each of them must be defined by setting forth the cause that requires them to be in a mutually adjunctive relationship so that they would both occur together within the intellect. The explanation [in the definition] would be directed specifically to that one of the two whose definition is desired. Therefore, a repetition of the cause must in fact take place, so that L 27 the explanation would be directed necessarily and specifically to that one of them that is intended for definition.

For example, it might be said,²⁶ "A 'father' is a living being from whose seed is generated another living being of the same species, [i.e., the 'fatherhood' being] from the standpoint that there is generated from his seed another living being of the same kind." Thus, the first²⁷ living being is the essence [of the father] that is the subject-substrate seat for the adjunctive relationship of fatherhood [i.e., as an accidental quality]. The other living being, who is of the same kind, is the essence of the son that is the subject-substrate seat for the adjunctive relationship of sonship [as an accidental quality].

Now, both [i.e., of these terms, 'father' and 'son', at first] have been taken as being free of any adjunctive relationship. But the generation of the second from the seed of the first constitutes the cause of their being in a mutually adjunctive relationship; and [the clause], 'from the standpoint that there is generated from his seed', is the inherently necessary repetition of that cause. The cause is mentioned again because of the linkage of the adjunctive relationship to the [first] living being, who in turn is the subject-substrate seat for the adjunctive relationship of fatherhood²⁸ [i.e., as an accidental quality].

²⁵ MS gl: [I.e.], by itself. Here L uses [yu'aqqal], while the MS uses [yata'aqqal], the latter matching [ta'aqqal] in the 5th form.

²⁶ MS gl: [I.e.], in defining 'a father'.

²⁷ The MS omits "first."

²⁸ L, the MS and MS Garrett 989Ha read, 'subject-substrate for the fatherhood' [ma'rūḍ al-ubūwah]. The editors of T clarified this point by corollating it with the preceding usage, "subject-substrate for the adjunctive relationship of fatherhood" [ma'rūḍ iḍāfat al-ubūwah].

[The cause] is repeated here so that the explanation would be made specifically²⁹ MS 16a for [the adjunctive relationship of fatherhood], for indeed, a father is adjunctively related to a son only from this standpoint.³⁰

So, if [the specifying cause] should not be repeated [in the definition] then the definition would not be true, because then the delimiting definition might be validly applicable [also] to the son, as then the son would be [defined] the same [as the father];³¹ and so the delimiting definition³² would not be steady and unvarying, and thus it would not be true.

But if [the specifying cause] should be repeated, then the delimiting definition would not be validly applicable [also] to the son. And even though the son should be 'a living being from whose seed there is generated another living being of his own kind', still he would not be a 'son' from this particular standpoint; but rather, he would have being only from the standpoint that there would be generated from his seed another individual of his own kind. Therefore, the delimiting definition would be true because of the repetition of one of its parts, while it would not be true without [that repetition].

Regarding repetition that is on account of some need, that is the kind of repetition which, if it should not in fact take place, then the definition would be true but it would not be complete. Many of the logicians set forth the definition of a composite in terms of an essence and its essential accident from this viewpoint. [It would be] as when they might say, "A flattened nose is a nose that has been hollowed out", where that kind of 'hollowing out' is done only on the nose. Thus, 'nose' and 'hollowed out' are a repetition,³³ and this repetition is permissible only because there is a need for it. Indeed, [even] if there should be no repetition in the explanatory definition, it would be true,—for it would be admissible to say in defining a flattened nose, that it is 'something with a hollowing out that is specific to the nose', and the definition would be true,—but it would not be

²⁹ L: [li-yakhuṣṣ]; MS 15b:19: [li-takhuṣṣ]; T: [li-takḥṣīṣ].

³⁰ MS gl: I.e., from the standpoint that there would be generated from his seed another living being of the same kind.

³¹ MS gl: I.e., there would be generated from his seed another living being of the same kind.

³² L omits here, 'the delimiting definition' [al-ḥadd].

³³ L: [ūkrāran]; T and the MS: [mukarraran].

complete. This is because the question is about the flattened nose, and whoever replies would need this repetition so that the reply would fit the question, so if there should be no repetition then [the reply] would not be complete.

2. An objection has been raised that there is no difference between 'need' and 'inherent necessity', since what is asked for in both cases,

a) if it should be only the subject-substrate [for an accidental quality], then there would be neither 'need' nor 'inherent necessity' for the repetition, while

b) if it should be the subject-substrate together with an accidental quality, then the repetition would be 'inherently necessary' in 'the location where it was needed'. Otherwise, the definition would be defective.

2.-a. The answer [to this objection] is that between these two there is indeed a separating difference, because an 'inherently necessary' repetition is such that, if there should be no repetition, then the 'definition' would not remain 'valid', while repetition 'in the location of need' is such that, if there should be no repetition, then the definition would not be 'complete'. The truth is that [for] this particular kind of the composites, this [kind] being a composite of the essence and its essential accident, there is L 28 an 'inherent necessity' for repetition in giving a definition of it, in view of the fact that an inquirer's question would be about the [whole] composite. Therefore, the essence [of it] must be mentioned one time in order to give a definition of [that factor], and [mentioned] another time in order to give a definition of its essential accident. But in the same situation [the repetition] might not be inherently necessary, because if the question should be about its essential accident by itself, there would be MS 16b no 'need' for the repetition. But whoever would reply would have need for the repetition so that his reply would fit the question.

Baydawi said:

L 28, T 13

2. *Classes of definitions*

An explanatory definition of some thing certainly will be equivalent to [the thing] both in general and in particular, so as to include the totality of [the thing's] individual parts and distinguish this [totality]

from any others. Thus, [an explanatory definition] inevitably would be either

- a. [from] within [the totality of parts], or
- b. external to [the totality of parts], or [would be]
- c. a composite of these two [alternatives].

(a.) In the first case, it would be either

1. [from within] the totality of [the thing's] parts, T 14 this being a 'complete *delimiting* definition', or it would not be [from within the totality of parts], this being an 'incomplete *delimiting* definition'.

(b.) [Likewise] in the second case [also being external to the totality of parts], it would be an 'incomplete *descriptive* definition'.

(c.) In the third case,

1. if the 'differentiating factor' [i.e., of the 'explanatory definition'] should be from within [the entity defined], then [the explanatory definition] also would be called an 'incomplete *delimiting* definition'; while,

2. if it should be the reverse [i.e., if the differentiating factor should not be from within the entity defined], as when [the explanatory definition] would be a composite of the genus and the property, then [the explanatory definition] would be called a 'complete *descriptive* definition'.

Isfahani says:

L 28, T 14, MS 16b

2. *Classes of definitions*

An explanatory definition of something must be equivalent to [the thing] in general and in particular, that is, in truth.

a. This [statement is true] in the sense that the thing defined must truly conform to everything that the explanatory definition affirms of it, this being both the 'factor of continuity'³⁴ and the 'factor of prohibition'.³⁵

³⁴ MS gl: This is a concomitance in the certainty of presence [thubût]; that is, whenever [mata'] the explanatory definition exists then the defined entity exists. The gloss is also in L with a minor change.

³⁵ L gl: [al-man']: The meaning of 'prohibition' is that the explanatory definition is such that no factor from the entity defined may enter it; and this is concomitant to our statement, "the entity defined must truly conform . . ."

b. And [the statement is true also] in the reverse of this sense, that is, the explanatory definition must truly affirm everything that the thing defined truly conforms to, this being both the 'factor of inclusion'³⁶ and the 'factor of reflexive action'.³⁷

[The reason for this is that] if [the explanatory definition] should not be equivalent to [the thing defined] in actual fact, then [the explanatory definition] would be either

1. clearly different from [the thing defined], or
2. more particular than it from some aspect or other,³⁸ or
3. more particular than it in an absolute sense, or
4. more general than it in an absolute sense.

But all of these conclusions are false. That the first and second [(1.), (2.) conclusions are false] is obvious, because the conception of the defining agency necessarily should bring about the conception of the thing defined; but something clearly different [from it] or something more particular would not do that.

The third [(3.) conclusion is false], because something more particular in an absolute sense would not include all the individual parts of the thing defined, and thus would be less frequently [in the mind], and what exists less frequently would be more obscure, and what is more obscure would not be useful in an explanatory definition. The fourth [(4.) conclusion is false], because [the definer being] more general in an absolute sense would not clearly distinguish the quiddity of the thing defined from others, since [the definer as more general] would make a commonality between [the quiddity of the defined] and the others, and what makes a commonality between two entities would not clearly distinguish either one of them from the other. Further, the conception of something more general in an absolute sense would not necessarily bring about [in the mind] the conception of something more particular. Indeed, the concepts of a 'living being' and of a 'walking being' do not necessarily bring about the concept of 'man'.

³⁶ MS gl: [al-jam']: This is that the explanatory definition will include every individual part of the defined entity.

³⁷ L gl: [al-in'ikās]: This is a concomitance in exclusion; whenever a defined entity would be excluded the explanatory definition would be excluded.

³⁸ L and T: [akhaṣṣ min wajh]; MS: [akhaṣṣ minhu min wajh]; MS Garrett 989Ha: [akhaṣṣ minhu bi-wajh].

Now, if you have understood that much, we will proceed and say that an explanatory definition L 29 may be divided into four classes:

- a. a complete delimiting definition,
- b. an incomplete delimiting definition,
- c. a complete descriptive definition, and
- d. an incomplete descriptive definition.

The reason why [the division] is comprised within these four classes is that the explanatory definition, being other³⁹ than the thing defined but factually equivalent to it, inevitably would be either

1. [from] within the entity defined, or
2. external to it, or
3. a composite of these two.

(1.) In the first case, that is, where the explanatory definition is [from] within the thing defined,

a) either the explanatory definition will comprise the totality of the parts of the thing defined, this being a 'complete delimiting definition', as 'rational living being' is in giving an definition of 'man'; or,

b) the explanatory definition will not comprise the totality of the parts of the thing defined, this being an 'incomplete delimiting definition', as 'the body of a growing and rationally speaking being', or 'a body that speaks rationally', or 'a substance that speaks rationally' would be in defining 'man'.

(2.) In the second case, the explanatory definition will be external to the thing defined, this being an 'incomplete descriptive definition', as 'a being that walks erectly' MS 17a would be in a definition of 'man'.

(3.) In the third case, that is, where the explanatory definition will be a composite of factors both internal and external to [the thing defined], and

a) if the 'differentiating factor' [i.e., from within the whole definition] should be *internal* to the thing defined, that is, if [the 'differentiating factor'] should be a proximate 'individual difference', then [the whole definition] also would be called an 'incomplete delimiting definition', as 'a being that walks and talks rationally' is in

³⁹ MS gl: I.e., as a matter of common understanding.

a definition of 'man'.⁴⁰ However, if the case should be the reverse, that is,

b) if the 'differentiating factor' should be *external* [to the thing defined], [and]

1) if the other, internal factor should be the proximate genus, as 'a living being that laughs' is in a definition of 'man', then this [whole definition] would be a 'complete descriptive definition', but

2) if the other, internal factor should not be the proximate genus, then this [whole definition] would be an 'incomplete descriptive definition' also, as 'a growing body that laughs,' or 'a laughing body', or 'a laughing substance' is in a definition of 'man'.

The apparent sense of our author's statement would require that an external 'differentiating factor',—together with whatever genus, proximate or remote,—should be called a 'complete descriptive definition', in which case it would be admissible for a 'complete descriptive definition' to be more than one [variety]. However, according to what we have stated,⁴¹ a 'complete descriptive definition' may be only one [variety], just as a 'complete delimiting definition' may be only one [variety], while 'incomplete delimiting definitions' and 'incomplete descriptive definitions' can be in several varieties.

Baydawi said:

L 29, T 14

Fakhr al-Din Razi's objections

To this [doctrine of the definition] an objection has been raised [by the Imam Razi as follows]:⁴²

a. The totality of the parts [of a thing] would constitute the thing itself. And one part would provide an explanatory definition of the totality only if it would give an explanatory definition of some one of its parts. That [defined] part then would be either

⁴⁰ MS gl: As a composite of a remote genus [i.e., a 'being that walks'] and a proximate individual difference [i.e., 'speaks rationally'].

⁴¹ Reading with T: [qarrarnā]. MS Garrett 989Ha reads: [qarrarnāhu].

L and the MS read: [qurrira], with a MS gl: "[I.e.], in the commentary."

⁴² Baydawi's clearer and more succinct treatment has reversed the sequence of the two points in Razi's objection. Cf. Razi's *Muhassal* pp. 16–18, of the repaginated reprint of the Cairo 1323 A.H. edition.

1. itself [i.e., the defining part], and thus implicitly it would constitute the definition of a thing by itself, or [the defined part] would be

2. one external to [the defining part].

However, an external [defining factor] would provide an explanatory definition [of the object] only if [the external factor's] specific applicability to [the object] should be understood, and that would depend upon an 'understanding' of [the object being defined] and upon an understanding of whatever else there is among [all other] matters without end, which would be an impossibility.

b. If the desired goal [in making a definition] should be something of which there would be an awareness [already], then its attainment [i.e., as something not known] would not [again] be possible; while if it should not be something of which there would be some awareness already, L 30 then it would be impossible to [begin a] search for it.

Isfahani says:

L 30, T 14, MS 17a

Fakhr al-Din Razi's objections

The Imam [Fakhr al-Din] al-Razi⁴³ raised objection [on the doctrine of] the definition⁴⁴ on two aspects.

a. [The first aspect on which Imam Razi raised his objection] is that definition of a [particular] thing is impossible. This is because definition of [the thing] by means of itself would be impossible; in that case then,⁴⁵ definition would be either

1. by means of a factor internal [i.e., to the thing being defined], or

2. by means of a factor external [to it], or

3. [by means of] a composite of the two [factors].

(1.) In the first case above [i.e., definition by means of an internal factor], the factor internal [to the thing to be defined] would be either

⁴³ L, MS and MS Garrett 989Ha: 'al-Imam'; T: 'al-Imam al-Razi'.

⁴⁴ MS gl: i.e., on the admissibility [jawāz] of an explanatory definition.

⁴⁵ This clause in full is included in L, T, MS Garrett 989Ha and MS Garrett Yahuda 4486.

In the MS, however, after having been written in the following portion was crossed out.

a) all of its [necessary] parts,⁴⁶ or

b) [only] one of them,⁴⁷ each of these alternatives being invalid.

(a) As for [the first alternative here with the definition having] all the parts, [the definition would be impossible,] because having the totality of the parts would constitute the thing itself, and a definition of a thing by the totality of its parts would be a definition of the thing by means of itself, which is impossible.

(b) As for [the second alternative here with the definition having only] one of the parts, [the definition would be impossible] because that part would give an explanatory definition of the totality only if it gave an explanatory definition of one of its parts. This is because, if it did not give an explanatory definition of one of the parts, then [the case would be] either that none of the parts had any need of definition, or that [the part to be defined] already had been given an explanatory definition by some other than the part stipulated as providing the explanatory definition for the [original] entity. Now, if all parts of the entity [to be defined] should be known already, then its quiddity would be known [already]; and so that [stipulated] part [really] would not provide the explanatory definition for it, but this would be contrary to the assumption [i.e., that a definition is needed].

Thus, it is established that a part would provide an explanatory definition of a thing only if it would give an explanatory definition of one of its parts. Thus, that part providing the explanatory definition would be either the part [itself] that is being given the explanatory definition, and this would imply definition of a thing by itself;⁴⁸ or, [it would be] something external to the thing [being defined], which would imply definition by external means, but definition by external means is impossible.

(2.) [In the second case above, (as well as in the paragraph just ended), definition by means of an external factor is impossible]: because T 15 an external [factor] would provide an explanatory definition of a thing only if [the external factor's] specific applicability [to the thing] should be explained. Indeed, any characteristic MS 17b that would not be specifically applicable to the thing [being

⁴⁶ MS gl: As a 'living being that speaks rationally'.

⁴⁷ MS gl: As a 'body that speaks rationally' or a 'substance that speaks rationally'.

⁴⁸ T inserts, 'this being impossible'.

defined]⁴⁹ would not be valid in its definition. Thus, if [the external factor's] specific applicability to [the thing being defined] should not be explained, then possibly its specific applicability to [the thing] would be nonexistent, and thus would not provide an understanding of [the thing].

Now, having a specific applicability means that the characteristic would be affirmed of that [particular] thing and be excluded from anything else. Thus, an understanding [of an external descriptive factor's] specific applicability [to an entity being defined] depends upon an understanding of the thing [being defined] plus an understanding of whatever else there is of all other matters without limit. This is so, since it is impossible to understand the specific applicability [of an entity's defining factor], while being ignorant of both the entity itself and of whatever else there is. Thus, an understanding of [the defining factor's specific applicability] is dependent upon both an understanding of the thing [being defined], plus an understanding of whatever else there is of all other matters without limit, and that is an impossibility.

Indeed, [formulating an explanatory definition of a particular thing] from 'an understanding of that thing' implicitly would constitute a circular argument. This is so because, in such a case:

a) an understanding of the thing [to be defined] depends upon an explanatory definition of [the thing] made by a defining factor external to it. And

b) a definition of [the thing] by way of a defining factor external to it depends upon an understanding of the [external defining factor's] specific applicability to the thing. And

c) an understanding of the [external defining factor's] specific applicability to the entity [being defined] depends upon 'an understanding of the thing' [itself]. Thus, it is implicitly a circular argument.

Moreover, [formulating an explanatory definition of a particular thing] from an understanding of 'whatever else there is [other than that thing] among all matters without limit', implies that the mind would comprehend what is without limit, since whatever else is [other than that thing] would be without limit.

(3.) [In the third case above, i.e., an explanatory definition by] a composite of factors both internal and external would be [actually

⁴⁹ MS gl: As 'a walking being'.

a definition] by external means. This is so because a [definition] composed of both internal and external factors would represent neither the thing itself, nor its internal nature. If it should be otherwise, then the external factor would be within, because the external part L 31 would be [only] a part of what is composed from it and from the internal [part], and the part of a part would constitute a part [of the whole].

Let no one say that [a definition] composed of both internal and external factors would not be [a definition] by external means unless implicitly the internal factor would be [really] external. This is because we hold that the entry of a composite [definition] within the interior of something would necessarily cause the entry of every part of the composite within [the entity], but the exit of the composite from [within] the entity would not necessarily cause every part of [the composite definition] to exit from it.

Thus, invalidation of a definition by means of an external factor implies invalidation of a definition by means of a composite of internal and external factors.

b. The second [aspect on which Razi raised objection] is that if the sought for conception of an entity should be something of which there was some awareness⁵⁰ [already], then it would be impossible to obtain it [again as if new], because of the impossibility of [newly] obtaining something already obtained. But if it should not be something of which there was some awareness already, then a search for it would be impossible, because of the impossibility for anyone to begin a search for something of which no one was aware.

Baydawi said:

L 31, T 15

Baydawi's reply to Razi's objections

a.-a1. The answer to [Razi's] first objection is that a part naturally precedes the whole, and for [partial] entities, every one of which is antecedent to [a complete] entity, it is impossible to be the [complete] thing itself, or to be its defining factor.

Moreover, an explanatory definition of an entity is not under obligation to provide a definition of any of [the entity's] parts, basically

⁵⁰ MS gl: I.e., known [ma'lūm].

because it is admissible that none of them would have need for it. The definition of a described entity depends upon the description that provides the explanatory description being such that from a conception of [this description] a conception of the described object can be inferred that exactly fits it. However, that [inference] depends upon the [former conception's] specific applicability to and at the same time its inclusiveness of [the latter conception], not [merely] upon there being knowledge of these two factors.⁵¹

This argument is weak, however, since neither one [i.e., the 'specific applicability' or the 'inclusiveness', taken individually] as a prerequisite would require that they both be a prerequisite together as a complete total, in order to point out the distinguishing features [i.e., of the object defined by description].

If all the parts [of something], even [the part having] formative [power] [i.e., the defining factor], should be known, then the quiddity [of the thing] would be known, while, if the case should be otherwise, it would be useless to provide a delimiting definition.

If the conception of the [definition from an external aspect] necessarily should bring about the conception of [the object being described], and further, if [this definition from an external aspect] should be an [already] formed conception, then the [conception that would be brought about also] would be an [already] formed conception, and there would be no need for an explanatory definition [of it]. But if [the definition from an external aspect] should not be an [already] formed conception, then an explanatory definition by its means would be impossible.

a.-a2. However, [in summary, a proper] answer is that the various parts [of something to be defined] would be individually known, and [the formulation of] a 'delimiting definition' would consist in bringing them together as a total group so that in the mind there would occur a form corresponding to the entity that has been defined by delimitation.

The case would be the same with regard to a 'descriptive definition' if [the defining factor] should be a composite, but if [its defining factor] should be a single term, then it would provide no useful information.

⁵¹ L's unclear orthography of [bi-himā] is taken by T to be [bi-hā], but it is clearer in MS Garrett 283B and MS Garrett 989Hb.

b.-a. To [Razi's] second objection the answer is that in searching for an entity of which there is an awareness of some of its aspects there would be no impossibility.

Isfahani says:

L 31, T 15, MS 17b

Baydawi's reply to Razi's objections

a.-a1. The answer to [Razi's] first objection is that an explanatory definition [of something] would be valid when using both internal and external factors [of the thing].

1. Regarding definition by way of internal factors, when it would be a matter of considering all of the parts, we do not grant that the totality of the parts of a thing would be [the same as] the thing itself, such that it would imply that a definition by means of all of the parts would be a definition L 32 by way of the thing itself.

Indeed, a part naturally would be antecedent to the whole; and no single one of the [partial] things that would be antecedent to the [whole] thing, of which it is a part, can itself constitute that [whole] thing, such that it would imply that definition [of the whole] by means of all of its parts would constitute a definition by means of the thing itself. MS 18a

And definition by means of an internal factor, if it should be a matter of considering only one of the parts, would be valid.

[Razi's] statement is: "A part will provide an explanatory definition of the entity only when it has defined one of [the entity's] parts." Our position is that we do not grant this. Indeed, an explanatory definition of something is not required to define one of its parts at all, basically because it is admissible that none of the parts would have need for a part to define them.

[Razi's] statement is: "If all of the parts [of the thing] should be known, then the quiddity would be known, and thus a part would not provide the explanatory definition for it." Our position is that we do not grant that if the totality of the parts should be known then the quiddity would be known. The 'whole' is something other than the 'totality' of its parts. For it would be admissible that the totality of the parts would be known but that the whole would not be known. Thus, the whole would need to be defined, and the part would provide the definition of it.

2. Regarding definition by means of an external factor, we do not grant that it would be invalid.

[Razi's] statement is: "An external factor provides an explanatory definition of [an entity] only if [that factor] clearly defines its specific applicability to [the entity]." Our position is that we do not grant that.

[Razi's] statement is: "Since any description that would not specifically apply to the entity would not be useful in defining it." Our position is that we grant this.

[Razi's] statement is: "If [the external factor's] specific applicability to [the entity] should not be known, then possibly its specific applicability to [the entity] is nonexistent and thus would not provide any understanding of it."

Our position is that we do not grant that if [the external factor's] specific applicability to [the entity] should not be known then possibly its specific applicability to [the entity] would be nonexistent. Indeed, it is admissible that [the factor] would be specifically applicable to [the entity], while at the same time its specific applicability would not be known; so then there would be no possibility for it to lack specific applicability to [the entity], and in that case it would provide T 16 a useful understanding of the entity.⁵² Truly, the useful understanding provided by an external characteristic about the described object depends upon the characteristic's explanatory definition being of such accuracy that from a conception of [that definition] there would be inferred a conception of the described object exactly as it is. But then this nevertheless depends upon the external characteristic being specifically applicable to the described object and inclusive of it at the same time. For if [the characteristic] should not specifically apply to [the described object], then it would have a commonality both with the described object and with everything else. Thus, [the characteristic] would be more general than [the described object], and from the conception of something general no inference can be made to the conception of something particular. Moreover,

⁵² The MS f. 18a:11 repeats [ma'rifat-hu] to read, "...and in that case [the external characteristic's] understanding would provide a useful understanding of [the entity]".

A marginal gloss in the MS here reads: "The hypothesis is established, namely, the validity and possibility of definition by way of an external defining factor, as asserted by the objector to its impossibility."

if [the characteristic] should not be [also] inclusive, then it would be more particular [than the described object], and something more particular would be more obscure, and thus would not be useful in forming a definition.

But the useful understanding provided by an external characteristic about the described object does not depend upon knowing its specific applicability and its inclusiveness. Indeed, what is useful in forming a conception is the understanding of the specifically applicable and inclusive characteristic [itself], not an understanding of the specific applicability of the external characteristic to the described object. So it is admissible L 33 that between the specifically applicable and inclusive characteristic and the described object there would be an obvious concomitance such that the mind would make the transition from a conception of [the characteristic] to the conception of the described object, MS 18b even though the [characteristic's] specific applicability and inclusiveness should be unknown [previously].

Now, even if it should be granted that a definition by external means would depend on an understanding of the specific applicability of the external characteristic to the described object, nevertheless we do not grant that this implies a circular argument and an understanding of what is without limit.

[Razi's] statement is: "An understanding of the specific applicability [of an external characteristic to a described object] depends on an understanding of the described object, as well as an understanding of whatever else there is of all [relevant] matters without limit." Our [Isfahani's] position is that knowing the specific applicability [of an external characteristic to the described object] depends upon knowing the described object, from one or another aspect, and depends upon knowing everything else there is of [relevant] things without limit, from a total aspect. Therefore, there is no implication of a circular argument or of a [required] comprehension [of everything else without limit].

[Baydawi] has stated that this reply [to Razi] is a weak argument. The fact that every individual part naturally would precede [in an explanatory definition of an entity] does not imply that they all precede as comprising a whole and a totality in order to point out the difference there is between the totality of parts and the thing itself. Indeed, it is admissible that every one of the parts naturally would precede, while the whole, being a whole and a totality, would not

precede. In that case, the totality of parts would constitute the thing itself, so it would not be valid to construct a definition by means of the totality of parts, because of the impossibility of defining a thing by means of itself.

Regarding [Baydawi's] statement that an explanatory definition of an entity is not required to provide such a definition of any one of its parts because it is admissible that none of them would have any need for it, an objection could be raised that if all the parts, including even the 'part having formative power'⁵³ [i.e., the 'defining factor'], should be known, then the quiddity [of the thing] would be known [already]. This is because if the quiddity should not be known already, when there is knowledge of all the parts and even of the formative part, then no delimiting definition would be useful in providing an understanding of the defined entity. But it would be useful from your point of view [i.e., as supporters of the Baydawi-Isfahani argument]; and, if the quiddity [of an entity] should be known [already] when there is a knowledge of all its parts, then it would have no need for a [specific] part to define [the entity], and so the [specific] part would not provide an explanatory definition for it.

a.-a2. In answer [to Razi] about a definition by external means [Baydawi] said:

The definition of a described entity depends upon the description that provides the explanatory definition being such that from a conception of [this description] a conception of the described object can be inferred that exactly fits it. However, that [inference] depends upon the [former conception's] specific applicability to and at the same time its inclusiveness of [the latter conception], not [merely] upon there being knowledge of these two factors.

Regarding this [statement] an observation could be made [by using his own words], "If the conception of the [definition] by external means necessarily should bring about the conception of [the described object], and if [this definition by external means] should be an [already] formed conception, then the [conception brought about also] would be an [already] formed conception, and there would be no need for a definition [of it]. But if [this definition by external means] should not be an [already] formed conception, then a definition by its means would be impossible."

⁵³ [al-juz' al-ḡuwarf].

a.-a3. Then [Baydawi] said: "However, a [proper] answer is that formulating a definition L 34 by means of 'all the parts' is [only] a manner of expression. Indeed, the various parts [of an entity to be defined] would be individually known, and [the formulation of] a 'delimiting definition' would provide for bringing all the parts gathered together⁵⁴ in such a way that there would occur in the mind a [recognized and] known image⁵⁵ corresponding MS 19a to the object defined by delimitation."

A verification of this is that 'all the parts' would constitute the quiddity itself. But 'all the parts' may be regarded in the mind in two ways:

1. as a totality, in that 'all the parts' would occur as having a single existence⁵⁶ [in the mind], and in this regard [as a totality] it would constitute the 'object defined by delimitation'; and

2. as separate pieces, in that each part would occur [in the mind] as having an existence by itself,⁵⁷ and in this regard [as separate pieces] 'all the parts' would constitute 'a delimiting definition'. Therefore,—from a definition of 'all the parts' taken as a totality, [and] from [a definition of] 'all the parts' taken as separates—no inference can be made that the entity would be defined by means of itself.

A clarification of that [statement] is that to define the 'quiddity' [of an entity] by means of 'all the parts' has the meaning that the [individual] conceptions of 'all the parts [taken as separates]' would be of use in formulating a [single over all] conception of 'all the parts [taken as a totality]'. Moreover, all the [individual] conceptions of the parts [taken separately] would constitute something other than a [single] conception of all the parts [taken as a totality]. [This is] because "all the [separate] conceptions of the parts" is a manner of expressing "all the [separate] existences of the parts" within the mind, since the 'conception' of a thing is an expression for its 'existence' within the mind. Thus, the [separate] 'conceptions' of all the parts would be their [separate] 'existences' within the mind. And [so] the existences [separately] of the parts within the mind would

⁵⁴ L and T: [mujtama'ah]; the MS: [majmū'ah].

⁵⁵ L and T read, 'intelligible image' [šūrah ma'lūmah], while the MS and MS Garrett 989Ha omit the adjective 'intelligible'.

⁵⁶ MS gl: I.e., a single concept [would occur] in the mind.

⁵⁷ MS gl: I.e., a single concept.

constitute something other than the existence [as a totality] of all the parts within the mind. [By this latter] I [Isfahani] mean the existence of the quiddity, whether in its essence,⁵⁸ or as a manner of expression.⁵⁹

Indeed, the existences of the parts [separately] would consist of multiple existences [all] linked to the parts in such a way that for every [separate] part there would be an existence in the mind that is different from the existence of any other, whether in its essence or as a manner of expression. But the existence of all the parts [as a totality] would be a single existence linked to the totality. And there is no doubt that the mutually different existences [all] linked to the parts would constitute something other than the single existence linked to their totality. Thus, the [multiple] concepts of 'all the parts [separately]' constitute something other than the [single] concept of 'all the parts [as a totality]'. Therefore, it cannot be inferred that a definition by means of 'all the parts' would constitute a definition of an entity by means of 'itself'.

An objection could be raised that then inevitably—

1. either [the case would be that] every one of the parts would have its own existence separately within the mind, which would imply that T 17 the 'genus' and the 'individual difference' each would have an existence in the mind different from the other's existence in the mind; so it would be impossible to predicate one [of them] of the other as being in agreement, and it would be impossible also to predicate them both of the sum resulting from the two of them⁶⁰ as being in agreement; and since the condition governing the definer L 35 is that it should be equal in truth to the defined entity, if [the definer] should not be predicated as being in agreement [with the defined entity] then being equal [with the defined entity] would be an impossibility, and thus, an explanatory definition by means of [the definer] would be impossible;

2. or, [the case would be that] the totality [of the parts] would be present within a single existence in the mind,⁶¹ MS 19b so this

⁵⁸ MS gl: That is, if the parts should be really existing [ḥaqīqīyah] parts, which would not be the case unless the quiddity should be really existing.

⁵⁹ MS gl: That is, if the parts should be 'parts' as a 'manner of expression' [ʿtibārīyah], which would not be the case unless the quiddity should be such 'as a manner of expression'.

⁶⁰ MS gl: Such as man.

⁶¹ L and T omit the line: "and this would imply that all the parts [together as

case would imply that the explanatory definition of the entity would be by means of [the entity] itself.

1.-a. The reply [to the first case of this objection] would be that the genus and the difference each have an existence differing the one from the other in the mind, and it would be impossible to predicate one of them of the other as being in agreement in this regard; and it would be impossible for 'all the parts' [as a totality] to be equal to the [one] quiddity in truth in this regard. But the condition governing the definer, that it should be equal in truth to the defined entity, is with regard to [the definition's] quiddity,⁶² but not with regard to its quiddity as being under the restriction of [external] existence.

Now, although the genus and the difference each has an existence different from that of the other, and with regard to [each of them] being limited by this restriction [of external existence], neither one [of the two] may be predicated the one of the other. But with regard to the fact that each of them may sometimes be found to exist [externally] with the other in a single existence,⁶³ one of the two may be predicated truthfully of the other.

Further, on the assumption that the totality [of parts] would be [mentally] present in a single existence, this [fact] would not imply that an explanatory definition [formulated] by means of the parts present in the mind in a single existence would constitute the definition of something by means of itself. That is so, because a single existence, with regard to its linkage in the mind with the quiddity of the genus would be a conception of the quiddity of the genus; and with regard to its linkage [in the mind] with the quiddity of the individual difference [the single existence] would be a conception of the quiddity of the individual difference; and with regard to its linkage with the totality obtained from the [combination of] genus and difference it would be a conception of the quiddity [of the whole entity].

a totality] would be present [mawjūdan] in the mind in one existence." The MS and MS Garrett 989Ha include the line.

⁶² T inserts as clarification, [i.e.], "in view of its being [the quiddity]" [min ḥayth hiya hiya].

⁶³ Gloss in MS and L: [Regarding Isfahani's] statement, "in a single existence"—that is, it would be external [existence] if the quiddity should be related to it in reality or in theory, or [it would be existence] in the mind if the quiddity [merely] should be 'related to it'. [From al-Sharīf al-Jurjānī's glosses on Isfahani's commentary.]

Thus, the 'conceptions' would be differentiated,⁶⁴ even though in the mind the existence would be single. For the whole concept of the genus and the difference [as separates] would be different from the concept of the totality obtained from the [combination of] genus and difference, but the sum of the two concepts would be useful in formulating a [single] concept [of the total formation process] of the combination. Therefore, the definition of something by means of itself would not be implied.

Likewise, with regard to a descriptive definition, if [the object being defined] should be a composite, then its single elements would be [separately] conceived, but a conception of its single elements would not imply that the thing defined by description would be conceived. Rather, [that] would depend upon them being brought together as a group in such a way that a form corresponding to the described thing would take shape in the mind.

The case would be the same for an incomplete delimiting definition. But a single term [as the defining factor] would not provide anything [useful], because if [the defining factor] should be a conception [already formed] then the object to be defined [also] would be a conception [already formed], and thus would have no need to be defined; but if [the defining factor] should not be a conception [already formed], then it would be impossible to formulate an explanatory definition by means of it.

2.-a. To the second [case of the objection the reply would be] that to direct a search toward something that is perceived in one or another of its aspects would not be impossible. The thing for which the concept is sought L 36 would be known in one aspect and unknown in another aspect, and the direction of a search for something having [these] two aspects would not be towards the known aspect nor the unknown aspect, so there would be no implication that the search would be to obtain what had been obtained already, nor that it would be a search for the [absolutely] unknown.

⁶⁴ MS gl: I.e., in that respect. [From al-Jurjani's glosses on Isfahani's commentary.]

Baydawi said:

L 36, T 17

3. *Realities definable and definitive*⁶⁵

Real entities are either simple or composite, and each of these either will have something else composed from it, or it will not.

a. A simple entity from which nothing else will be composed would not be defined by delimitation, nor would a delimiting definition be formulated by means of it, as with 'the Necessary [and Obligating] Existent One'.

b. [A simple entity] from which something else will be composed would not be defined by delimitation, but a delimiting definition would be formulated by means of it, as is the case with 'substance'.

c. A composite from which nothing else will be composed would be defined by delimitation, but a delimiting definition may not be formulated by means of it, as is the case with 'man'.

d. [A composite] from which something else will be composed would be defined by delimitation, and a delimiting definition may be formulated by means of it, as is the case with 'living being'.

Thus, a delimiting definition would belong to a composite entity, and so likewise would a complete descriptive definition, while an incomplete descriptive definition would belong inclusively with both [simple and composite] entities.

Isfahani says:

L 36, T 17, MS 20a

3. *Realities definable and definitive*

Real entities⁶⁶ are either 'simple', that is, not having any subdivision by which they would be made up of two or more parts, or [they are] 'composite', that is, having a subdivision by which they would be made up of two and more parts. And for each of these two, the

⁶⁵ [mā yu'arraḥ wa-yu'arraḥ bihi].

⁶⁶ L and the MS [both products of Istanbul] read [al-ḥaqāyiq], while T [a product of Cairo] reads [al-ḥaqā'iq]. Other manuscript copies used—MS Garrett 989Ha [Isfahani's commentary] & 989Hb [Baydawi's text], MS Garrett 283B [Baydawi], and MS Garrett-Yahuda 4486 [Isfahani]—omit the distinguishing marks, so they can read either way. This is the practice throughout the manuscripts for this and similar word patterns.

simple and the composite, either there will be something else composed from it, or there will not, so these [alternatives] make four classifications [as follows].

a. A simple entity from which nothing else will be composed would not be defined by delimitation, whether by a complete or an incomplete delimiting definition, because neither the complete nor the incomplete delimiting definition would be possible, except in a case having a [subdivided] part, and a simple entity has no [subdivided] part.

Moreover, nothing else would be defined by delimitation by the means of [that simple entity] as a necessary consequence of the fact that [that simple entity] would not be a part of anything else, as is the case with 'the Necessary [and Obligating] Existent One'. Indeed, there is no [subdivided] part with Him, nor does He constitute a [subdivided] part of anything else; therefore, He would not be defined by delimitation, nor would a delimiting definition be formulated by means of Him.

b. A simple entity from which 'something else' may be composed would not be defined by delimitation because it has no [subdivided] part [in itself]. But the 'something else' [than that simple entity] may be defined by delimitation by means of [that simple entity], because [in such a case, that simple entity] would constitute a part of [the other entity], as is the case with 'substance'. Indeed, ['substance'] is a simple entity and it has no [subdivided] part [in itself], but something else may be composed of it because it is the genus for the [individual] substances.⁶⁷ Thus, it would not be defined by delimitation, but something else may be given a delimiting definition by means of it.

c. A composite entity from which nothing else would be composed may be defined by delimitation because it has a [subdivided] part, and nothing else would be defined by delimitation by means of [this composite], as a necessary consequence of the fact that [this composite] would not constitute a [subdivided] part of anything else. This is the case with 'man', for ['man'] is a composite of [the two factors] 'a living being' and 'a rationally speaking being'. But nothing else would be composed from ['man'], as a necessary consequence

⁶⁷ MS gl: I.e., as are intellect, soul, prime matter, form, body as a growing [living substance] [al-jism al-nāmi], and body as an absolute [i.e., an abstraction].

of the fact that 'man' constitutes a primary species.⁶⁸ Thus, ['man'] may be defined by delimitation, but nothing else may be defined by delimitation by means of ['man', as a term in the definition].

d. A [1st] composite entity from which something else may be composed would be defined by delimitation because it has a [subdivided] part, and another [a 2nd composite] entity would be defined by delimitation by means of [the 1st composite] as a necessary consequence of the fact that [the 1st composite] would be a part of [the 2nd composite].

[This would be the case] as with 'a living being,' for ['a living being'] would be a composite of 'a body', and of 'a growing being', and of 'a sensate being', and entities other than ['a living being'] would be composed of it, L 37 as is 'man'. Thus, 'a living being' would be defined by delimitation, and a definition by delimitation may be formulated by means of it.

Therefore [in summary], a delimiting definition belongs with a composite entity equally whether it is a complete or an incomplete delimiting definition. The case is likewise with a complete descriptive definition, as a necessary consequence of the fact that it would be a composite of a genus⁶⁹ and a specific property. However, an incomplete descriptive definition belongs inclusively with both simple and composite entities.

Everything that has an explanatory concomitant property and that [in itself] is not intuitively conceived⁷⁰ would be defined by description; and everything that is an explanatory concomitant property of some entity that is not intuitively conceived would be the means used in formulating a descriptive definition of that entity.⁷¹

⁶⁸ [naw'an sāfilan].

⁶⁹ T adds the term "proximate", but other sources used do not.

⁷⁰ Reading with the MS, 'intuitively conceived' [badīhī al-taṣawwūr]. The other sources used do not have the added term [al-taṣawwūr] in this first statement, but in the second parallel statement all sources do include it.

⁷¹ A.-M. Goichon traces the semantic evolution of the word [ḥadd] as used in metaphysics and logic. Used of a concept, this word means 'definition', while in speaking of a proposition or of the syllogism, it means 'term'.

She states, "The whole Islamic theory of definition, and that of terms of reasoning, follows Aristotle, sometimes reproducing what he says almost word for word."

Following this discussion, a bibliography lists a number of the Arabic books on logic.

En-I-2, s.v. [ḥadd], by B. Carra de Vaux, J. Schacht, and A.-M. Goichon.

An English translation of Ibn Sina's *Isharat*, Part 1, Logic, was published by Shams Inati (Toronto: PIMS, 1984). Preceding the translated text there is an 'Analysis of the Text' in which Inati has drawn upon Ibn Sina's other writings on logic in order to complement what is given in the *Isharat*. A partial summary of this analysis will sketch here Ibn Sina's presentation: 1. Knowledge may be [intellectual] conception or [judgmental] assent. 2. Knowledge is in two forms: *practical*, dealing with people and society, and *theoretical*, dealing with the universe and its parts. 3. In order to increase human happiness via practical and theoretical knowledge, one should advance a) intellectual conception by way of 'definitions' in 'explanatory statements' and b) judgmental assent by way of 'inferential proof' [in argumentation].

CHAPTER 3: ARGUMENTATION

1. *Kinds of argumentation*

An 'inferential proof demonstration' consists of a process the knowledge of which [taken as a premise] by necessity produces knowledge of the 'conclusion's existence'.

a. Analogical deduction

Thus, an inferential proof demonstration may be made by means of a universal regarding a particular, or by means of either of two [universal] equivalents regarding the other, [the method in these two examples] being called 'analogical deduction'.

b. Investigative induction

Or, [proof demonstration may be made] by the reverse of this [i.e., demonstration by means of a particular regarding a universal], this being called 'complete [investigative] induction' if it includes all of [the universal's] particular examples, and 'incomplete [investigative] induction' if it does not.

c. Illustrative analogical deduction

Or, [proof demonstration may be made] by means of one particular regarding another particular, this being called 'illustrative analogical deduction', or [simply] 'analogical deduction', in the terminology of the jurists.¹

[In proof demonstration the first particular [term is called] the 'major' [or, 'root'] term, and the second particular [term is called] the 'minor' [or, 'branch'] term. The term having commonality [between these two] is called the 'middle' [or, 'connector'] term.² Its causative influence is recognized sometimes by a 'coordinate rota-

¹ 1.—[al-qiyās]; 2.—[al-istiqrā']; 3.—[al-tamthīl]/[al-qiyās].

² Major term = [aṣl] 'root'; minor = [far'] 'branch'; middle = [jāmi'] 'connector'. These terms possibly developed among the early Mutakallimūn or the jurists, and may have persisted in use in restricted topical areas. Later, the standard terms became [al-akbar] [al-aṣghar] and [al-awsaṭ].

tion', and sometimes by a thorough 'examination and classification', or by some other means.³

We have investigated the subject [of proof demonstration] thoroughly in [our book] *Minhaj al-Wusul ila 'Ilm al-Usul*.

Isfahani says:

L 37, T 18, MS 20a

CHAPTER 3: ARGUMENTATION

When Baydawi had finished Chapter 2 on 'explanatory statements', he began Chapter 3 on 'argumentation'. In it he set forth three topics: MS 20b

1. The kinds of argumentation, 2. Analogical deduction in the syllogism and its types, 3. The materials of argumentation.

1. *Kinds of argumentation*

'Argumentation', [the Arabic term [al-ḥujaj]] being the plural of 'argument', is the most immediate means to achieving a judgmental assent, [the terms] 'argument' and 'inferential proof demonstration' being synonymous. Now, an 'inferential proof demonstration' is descriptively defined as a process the knowledge of which [taken as a premise] by necessity produces knowledge of the conclusion's existence.

By the 'knowledge taken as a premise' and the 'knowledge [acquired] as a resulting conclusion'⁴ [Baydawi] is referring to [the process of] a 'judgmental assent' that comprises 'theoretical opinion', 'formal belief' and 'certain conviction'.

By 'necessity'⁵ he means [here] something more general than 'ordinary necessity' or 'intellectual necessity',⁶ equally whether [this unusual necessity] is readily apparent, that is, without an intermediary factor, or whether it is not readily apparent and has an intermediary factor.

³ Rotation [al-dawarān]; examination and classification [al-sabr wa-al-taqsim].

⁴ Knowledge as premise [al-'ilm al-malzūm]; knowledge as conclusion [al-'ilm al-lāzim].

⁵ I.e., 'inherent necessity', or, 'constraint', usually indicated by the term [al-darūrah].

⁶ MS gl: [I.e., as it is used] among the philosophers.

[Baydawi's] statement, "the proved conclusion's existence", would not require the exclusion [from consideration] of a proof demonstration leading to the conclusion that something was nonexistent, as the conclusion 'that something was nonexistent' would have existence in the mind. [This is] because the 'conclusion' is

a. that to which the 'evidence' of the proof demonstration is linked, and

b. it is a composite proposition comprising the relationship between subject L 38 and predicate,⁷ and

c. it is a more general [and basic assertion] than either 'decisive affirmation' or 'negation', and each of these would have existence in the mind.

Thus, a 'proof demonstration' is a process the judgmental assent to which by necessity brings about a judgmental assent to the proved conclusion's existence, [in a judgmental assent] more general [and basic] than if the proved conclusion had been [merely] a composite of either negative or positive factors. And as this explanatory definition involved the proper usage of verbal expression, [Baydawi] did not hesitate to put it into words as the 'proved conclusion', for in definitions involving verbal usage one need not be afraid to use words that have similarities.

Proof demonstration is of three kinds, and the basis for limiting the kinds to three is that proof demonstration is an adjunctive matter calling for two factors:

a. the first of the two being a factor the knowledge of which would be [admissible as] a premise, and

b. the other a factor the knowledge of which would be [accepted as] a conclusion. The first factor (a) is that by means of which a proof demonstration is made [i.e., it would be the predicate of the major premise]. The second factor (b) is that about which something is demonstrated, [i.e., it would be subject of the minor premise]. The factor (a) by which proof demonstration is made may be either a universal or a particular, and it is likewise with the factor (b) about which a proof demonstration is made. If that by which demonstration is made, (a) [i.e., the predicate of the major premise] and that about which something is demonstrated, (b) [i.e., the subject of the minor premise] should both be universals, then they must both be

⁷ Subject [al-maḥkūm 'alayhi]; predicate [al-maḥkūm bihi].

equal as true affirmations, so that the knowledge of one of them would necessarily imply the knowledge of the other.

Now, if you have understood this, then we shall proceed with our topic, [i.e., the three kinds of argumentation].

a. Analogical deduction

1. By means of a universal factor one may demonstrate either a particular factor, as for example, one may demonstrate [a necessary inference] from the fact that possibility is a certainty for everything composite, this being a universal [statement], to the certainty of [possibility] for a body, this being a particular [statement]; thus, one can argue that as every body is a composite, and as every composite is a possible reality, therefore, every body would be a possible reality.

2. Or, by means of a universal factor one may demonstrate another universal factor, that is, by means of one of two equivalent factors [one may demonstrate something] true of the other. For example, one may demonstrate [a necessary inference] from the fact that the ability to laugh is a certainty in 'every being potentially capable of amazement',—this [latter quality] being a universal factor equivalent to 'mankind',—to its certainty in mankind,—which [in turn] is a universal factor equivalent to 'every being potentially capable of amazement'; thus, one can argue that every human being MS 21a is potentially capable of amazement, and every being potentially capable of amazement is a being able to laugh, therefore, every human being is able to laugh.

These two divisions [of proof demonstration] are both termed analogical deduction.⁸

b. Investigative induction

Or, [proof demonstration may function] in the reverse manner, that is, by means of the particular one may demonstrate a universal factor.

1. [Proof demonstration] is called 'complete [investigative] induction' if the demonstration [i.e., of the universal] is made by means of all the particular examples of the universal.⁹ An example of this

⁸ See the article, "Kiyas" in the En-1-2.

⁹ Al-Sayyid al-Sharif al-Jurjani, in his *al-Ta'rifat*, the Book of Definitions, differs from Isfahani and states that induction is based only on a majority of examples of the particular, not on all of them. If it should be made a complete enumeration of examples [i.e., perfect induction] it would be called 'classified analogical deduction' [qiyāsan muqassaman].

is when one may say that every body has its own position, since a body would be either simple or compound, and every example from these two [divisions] would have its own position.

2. [Proof demonstration] is called 'incomplete [investigative] induction' if the demonstration is not made by means of all the particular examples [of the universal] but only by some of them. An example of this is when one may say that every living being moves its lower jaw when it chews, because men, birds and beasts do so. But an incomplete investigative induction would not provide the certainty of conviction, because it is admissible that the case of the portion [of the specimens] not examined might be contrary to the case of the portion L 39 [of those] examined. For example, the crocodile does not move its lower jaw, so therefore, a judgment by means of the universal would not be valid [in this division].

c. Illustrative analogical deduction

Or, proof demonstration may be made by means of one particular regarding another particular because of them both having a commonality in a given characteristic. [For example,] one may draw an inference from the unlawfulness of [grape] juice/wine [with alcoholic content] to the unlawfulness of [date, raisin or other] juice/wine [presumably with lower alcoholic content],¹⁰ because they both have a commonality in being an intoxicant; thus, one may say that date wine is unlawful as is [ordinary] wine, since they both have a commonality in being an intoxicant. [This kind of proof demonstration] is called 'illustrative analogical deduction' in the terminology of the Mutakallimun,¹¹ while it is [simply] 'analogical deduction' in the terminology of the jurists.

¹⁰ See the article, "khamr", in En-I-2 (4:994–996), where [nabīdh] is also treated. In his *History of the Arabs*, (6th ed., etc. London: Macmillan; New York: St. Martin's Press, 1958) p. 19, 337 and note, Philip Hitti pointed out that the term [khamr] was not confined originally to grape wine nor [nabīdh] to date and raisin wine. The connotation of [khamr] seems to be the 'permeation' of alcoholic ferment, while the connotation of [nabīdh] seems to be the 'spoilage' [by alcoholic ferment] of liquid food. The rate and extent of this permeation and spoilage gave the measure of taste and mental effect, and consequently of religious approval or disapproval of the drink's use versus the non-religious appetite for it. As a practical distinction, [khamr] was an alcoholic beverage, grape wine, often of foreign import, while [nabīdh] would be the still potable 'home-made' date or raisin juice.

¹¹ A gloss in L, the MS and MS Garrett 989Ha adds: 'in the terminology of the logicians [al-mantiqīyīn]', according to another ms.

The first particular, grape wine in our example, is called the 'major' [or, 'root'] term, and the second particular, date wine in our example, is called the 'minor' [or, 'branch'] term, while the characteristic having commonality between these two, an 'intoxicant' in our example, is called the 'middle' [or, 'connector'] term.¹² The middle term provides useful information only in the certainty that it is an effective cause in the judgment, that is, [the middle term] is the defining agency for the judgment].

1. Sometimes [the middle term's] effective causality is known by a 'coordinate rotation', that is, an arrangement whereby the effect [is dependent] upon the factor having the higher existential function whether in its presence or its absence; that is, the effect is present when this factor is present and absent when it is absent. Similarly, the unlawful status depends upon the intoxicant, whether it is present or absent. As being present, [unlawfulness] is in the juice when there is an intoxicating intensity present, and as being absent, [the unlawfulness is absent] when the juice is [merely] a liquid where no intoxicating intensity has developed, or where it has become vinegar.

2. At other times [the middle term's effective causality is known] by a process of thorough 'examination and classification', [a process] that collects the characteristics in the major term and eliminates some of them in order that the remainder might be assigned to the causality. T 19 It is as one would say, [for example], that the reason grape wine is unlawful is either the fact that it is an intoxicant, or that it is grape juice, or that it is the sum of these, or something else. But anything other than the fact that it is an intoxicant would not be a [sufficient] reason by our method¹³ that would serve to displace the reason [already] in the characteristic [comprising the middle term]. Therefore, the fact that [grape wine, the major term] is an intoxicant is determined as the causality [that effectively makes it unlawful].

3. Or, [the middle term's effective causality may be known] by some means other than 'coordinate rotation' or 'thorough examination', [some means] that would indicate the [effective] causality

¹² 'Major' (or, 'root') term = [aṣl]; 'minor' (or, 'branch') term = [far']; 'middle' (or, 'connector') term = [jāmi'].

¹³ L gl: inserts 'aforementioned' [al-madhkūr].

Gloss in MS Garrett 989Ha: Lc., by proof demonstration [ay, bi-al-dalīl].

of the characteristic [comprising the middle term]. Examples [of such] would be a pronouncement from an authoritative text, a consensus [among scholars], a [special] appropriateness [for usage], or the similarity [to an accepted usage].

Our author has dealt exhaustively with the subject of analogical deduction in his book, *Minhaj al-Wusul ila 'Ilm al-Usul*.

Baydawi said:

L 39, T 19

2. *Analogical deduction in the syllogism and its types*

Analogical deduction in the syllogism¹⁴ consists in a proposition-(a) composed of statements-(a1, a2), such that, when these have been accepted as valid, there would necessarily unfold from [the first proposition-(a)] because of its essence another proposition-(b), and that-(b) would comprise either the resulting conclusion-(c) or its actual contrary-(d).

This [syllogism] is called either a 'hypothetical exceptive [syllogism]', or [if] it is not that then it is called a 'categorical connective [syllogism]'.

Isfahani says:

L 39, T 19, MS 21b

2. *Analogical deduction in the syllogism and its types*

One should understand that the particulars classified under a universal are those that are distinguished either by their own identities, or by their attributes,¹⁵ or by both of these: the first being called 'kinds',¹⁶ the second 'types',¹⁷ and the third 'classes'.¹⁸ L 40

Now, since the particulars of a definition—that is, the 'delimiting definition', both complete and incomplete, and the 'descriptive

¹⁴ This clause, 'analogical deduction in the syllogism' will be abbreviated in the translation to the single word 'syllogism'.

¹⁵ Own identities [dhātīyāt]; attributes [ʿaraḍīyāt].

¹⁶ MS gl: Like 'man' and 'horse'.

¹⁷ MS gl: Like 'Greek' and 'Abyssinian'.

In relation to the deduction in the syllogism we will opt for the term, 'types', for general usage, and 'moods', for the technical term used with the figures. [Ed.]

¹⁸ Kinds [anwāʿ]; types [aṣnāf]; classes [aqsām].

definition', both complete and incomplete—are distinguished in part by their own identities, as is the distinction between a complete delimiting definition and an incomplete delimiting definition, and in part by their accidental qualities, as is the distinction between a complete descriptive definition and an incomplete one, [Baydawi] called [these particulars of a definition] 'classes'.

And since distinguishing among the particulars of argumentation, namely, analogical deduction, investigative induction and illustrative analogical deduction,¹⁹ takes place by means of their own identities he called [these particulars of argumentation] 'kinds'.

And since distinguishing among the particular examples of analogical deduction,—namely, the 'hypothetical exceptive', and the 'categorical connective',²⁰ the latter functioning on the basis of a syllogistic structure having first, second, third and fourth figures,—takes place by means of their accidental qualities, he called [these particular examples of deduction] 'types'.

The term 'proposition' applies to what is heard, that is, uttered, and to what is intellectually conceived,²¹ that is, the meaning that exists in the [reasoning] soul. The meaning here is the intellectual conception, because it is that which is required for the [logical goal as] conclusion, and the proposition that one hears may be called a syllogism by way of metaphor.

In [Baydawi's] expression, "[a proposition] composed of statements", he meant two or more statements in order a) to include both the simple²² and the compound syllogism,²³ and b) to produce from [the syllogism] a single proposition that would imply [an equivalent] contrary or a contradictory contrary of it.²⁴

¹⁹ [qiyās], [istiqrāʾ], [tamthīl]/[qiyās].

²⁰ [al-istithnāʾī], [al-iqtirānī].

²¹ Proposition = [qawl]; uttered = [malfūz]; conceived = [maʿqūl].

²² MS gl: [The simple syllogism] is composed of two premises, as when we say that a) the world is changeable and b) everything changeable is a temporal phenomenon [ḥādith], so therefore, the world is a temporal phenomenon.

²³ MS gl: [The compound syllogism] is like a syllogism with abridged conclusions [maqṣūr al-natāʾij], as when we say that the world is changeable and everything changeable is a temporal phenomenon and every temporal phenomenon has need for a maker, so therefore, the world has need for a Maker.

²⁴ MS gl: As when we say that every human is a living being [ḥayawān], it implies an equivalent contrary [ʾaks mustawīn]—some living beings are human—or the contradictory contrary [ʾaks naqīḍ]—everything that is not a living being is not a human.

There is no deficiency in [a statement] such as when we say that 'a certain man walks around at night so therefore he is a thief', nor is there when we say that 'if the sun has risen then the daytime is here'. Each of them is a single premise that requires another premise, and with that [other premise] it would then be a syllogism.

But we do not grant that our statement that 'a certain man walks around at night' will by itself necessitate our [further] statement that 'therefore he is a thief'; but rather, it together with our additional statement that 'everyone who walks around at night is a thief' would then necessitate it. Nor do we grant that when we say that 'if the sun has risen then the daytime is here', that it is [merely] a single premise judgment. Just as the word, 'if', indicates the arrival [of daytime] so it also indicates the position of [an implied] premise, so that there are, in fact, two premise judgments, one of which indicates the arrival [of daytime] and the other the position of [the implied] premise.

Regarding his expression, "when these are accepted as valid": by this we²⁵ do not mean in this same statement that they should be truthful, but rather, that they would be such [i.e., accepted as valid] even if their truth should only be assumed in order to form a syllogism the premises of which would be false.²⁶

Also there is his statement, "there would necessarily unfold from it", that is, from the first composite proposition would come factors providing for the existence of a composite structure fitted into MS 22a the syllogism. Thus, for that reason he did not say, "there would necessarily unfold from them" [i.e., the factors that become the premises], because the desired conclusion would not result from those statements unless they should come in that special [syllogistic] structure.

His expression, "because of its essence", means (a.) that the [syllogistic] necessity [referred to] would not be due to the mediation of some extraneous premise, that is, [the logic] would not be necessary because of one of the two premises of the syllogism. Nor (b.)

²⁵ Reading with L, the MS, MS Garrett 989Ha, and MS Garrett-Yahuda 4486: "we do not mean" [lā na'ni]. T alone of sources used reads, "he does not mean" [lā ya'ni].

²⁶ MS gl: As when we say that every man is a rock and every rock is mineral; thus, even if these two premises should be false, nevertheless they are such that when they are in a valid form the inference from them would be that every man is mineral.

would it be [necessary] due to the mediation of a premise that is potentially implied within one of those stated, that is, [a 'hidden' premise that would be] implied because of one of the two premises of the syllogism but whose two limiting terms would both be different from the limiting terms of the syllogism.

a. Regarding the first [meaning derived from Baydawi's reference], that is, syllogistic necessity as being due to the mediation of some extraneous premise, it would be as when we say, "A is equal to B and B is equal to C, and from this it is necessarily implied that A is equal to C." However, [this 'necessary implication'] is not because of the essence of this 'structure'. If it should be otherwise, then this kind of 'structure' would always be productive, which it is not.

This is because if, instead of 'equivalence', 'clear distinction' should be taken [as the category], or 'halving', or 'doubling', then it would not produce any 'necessary implication'. Indeed, if we should say that A is distinct from B, and B is distinct from C, it would not imply that A would be distinct from C, because what may be distinguished from another distinct entity would not itself by implication be a distinct entity.²⁷ Likewise, if we should say that A is the half of B, and B is the half of C, it would not imply that A would be the half of C, because the half of a half would not be a half. And likewise, if we should say that A is the double of B, and B is the double of C, it would not imply that A would be the double of C, because the double of a double would not be a double.

Rather, the only 'necessary implication' from this syllogistic 'structure' would be that A is equal to C by the mediation of our proposition that everything equal to B is equal to all that B equals. If this is joined to the first proposition then it produces [the statement that] A is equal to all that B equals, which means that all that B equals A is equal to. [The statement that] B is equal to C, means that C is equalled by B, so this is made the minor premise in our proposition that all that B equals A is equal to, and this produces C, [to which] A is equal, meaning that A is equal to C, and this is the conclusive goal of the logic.

²⁷ MS gl: As if we should say that a man is distinct from a rock and a rock is distinct from a rational being, there is no implication from this that a man would be distinct from a rational being, also a horse is distinct from a man and a man is distinct from a neighing animal, but there is no implication from this that a horse would be distinct from a neighing animal, and there are many similar examples.

Thus it is known that the syllogistic 'structure' mentioned gives the 'necessary implication' of our proposition, that "A is equal to C", only through the mediation of our [other] statement that "all that is equal to B is equal to all that B equals." And this is an extraneous premise, not being a 'necessary implication' of either one of the two premises of the syllogism.

So wherever this premise would not be true, the [syllogistic] composite structure would not produce [a 'necessary implication']. It would be as when we say that "A is half of B and B is half of C", because it would not be truthful to say that all that is half of B would be the half of whatever B is the half of. T 20

And wherever this premise would be true, it would produce [a 'necessary implication'] as it does in the syllogism of equivalence and the like. It would be as when we say that "A is the premise of B, and B is the premise of C, and this L 42 implies that A is the premise of C", since it would be true that all that is a premise of B would be the premise MS 22b of all for which B is the premise.

b. Regarding the second [meaning derived from Baydawi's reference], that is, syllogistic necessity as being due to the mediation of a premise potentially implied in one of those stated, it would be as when we might say, "The removal of part of the substance necessarily causes the removal of the substance,"²⁸ but the removal of whatever is not the substance does not necessarily cause the removal of the substance."

Now, 'part of the substance' implies 'the substance' by the mediation of [an implied premise, namely,] the 'contradictory contrary of the second [premise]',²⁹ this being as when we might say, "Every-

²⁸ MS gl: When we say that 'Zayd is not white, and every Greek is white', the implication is that 'Zayd is not a Greek' by the mediation of the contradictory contrary of the second [proposition] ['aks naqīḍ al-thānī] [also called a contradictory sub-contrary], namely, our proposition that whoever is not white is not Greek.

L gl: Regarding the syllogistic necessity by the mediation of a premise potentially implied by one of those stated, I [i.e., al-Jurjani] say that this proposition [i.e., Isfahani's example] in relation to the conclusion mentioned is not a syllogism. But when it is put together with our proposition, "What is not a part of the substance would be something that is not substance", it forms a syllogism of the Second Figure, and it would be included in its definition. [From Jurjani's glosses on Isfahani's commentary.]

²⁹ MS gl: ['aks naqīḍ al-thānī] I.e., the second proposition, namely the major premise, this being his expression, "The removal of whatever is not substance would not necessarily cause the removal of the substance."

thing whose removal necessarily causes the removal of the substance is substance." And this [mediating proposition] is set up as the major premise to our statement, "Removal of part of the substance necessarily causes the removal of the substance", in order to produce the conclusive logical goal.

But that [implied mediating] premise would be only on the condition that its two limiting terms should be different from the limiting terms of the syllogism [itself], lest the demonstration exercise should produce as result the 'equivalent contrary'. In that case the limiting terms of the syllogism [itself] would not be different, in contrast to the [difference in the] terms here,³⁰ since the 'contradictory contrary' does change the terms of the syllogism [itself], in contrast to the 'equivalent contrary'.

c. Further [to the meanings in Baydawi's reference], 'the necessity deriving from [the syllogism's] essence' is something more general in meaning than either what is 'obvious' or what constitutes the 'everything else', so that both the 'perfect syllogism'³¹ and the 'everything else' can be included within it.

Baydawi's expression, 'another proposition', means that it would be different from every aspect of the two premises. If it should be otherwise, then the necessary implication would be that each of the two premise judgments would be mutually distinct from each other, [each being] in their own syllogism, because [logical necessity] would govern each one of them.³²

Let no one say that consideration of this restriction³³ requires that the hypothetical exceptive syllogism, in which an identical premise would be an exception, should not be a syllogism—the case being like when we might say, "If A should be B, then C would be D; but A is B, therefore C is D",—since the conclusion statement is identical to one of the two premises.

This is because our doctrine is that the 'conclusion statement' in the 'hypothetical exceptive' syllogism is [within] the 'consequent', [i.e., the second and major premise]. One of the two premises is the

³⁰ MS gl: I.e., the contradictory contrary.

³¹ MS gl: A perfect syllogism is like the First Figure, and those other than perfect are like the other figures.

³² L gl: In accordance with our proposition, "All men are living beings and all stones are minerals", for these both require their individual expressions as necessarily as does a valid universal require its particular.

³³ MS gl: [I.e.], that they be different.

'necessary mediating conjunction' between the 'antecedent'³⁴ and the 'consequent', while the other premise has the position of antecedent, [i.e., the first, minor premise].³⁵ And there is no doubt that the conclusion statement is different from each of them, for the conclusion is that 'C is D', and one of the two premises is 'if A should be B, then C would be D', and the other premise is 'A is B'.

To state again, the syllogism inevitably either

a. will include the conclusion or its actual contrary: this [type] being called a *hypothetical exceptive syllogism*. [It is] as when we might say, "If the sun should have risen, then daytime would be here, but the sun has risen", which produces [the logical result] "the daytime is here", and this is in fact stated in the syllogism; and it is also as when we might say, "If the sun should have risen, then the daytime would be here, but the daytime is not here, so the sun has not risen"; thus, the conclusion would be as when we might say, "The sun has not risen", L 43 this being the opposite of what is in fact stated in the syllogism. Or,³⁶ [the syllogism]

b. will not include the conclusion statement or its actual contrary, this [type] being called the *categorical connective syllogism*, as when we might say, "The world is changeable, and everything changeable is a temporal phenomenon, MS 23a so, the world is a temporal phenomenon"; and our saying, "So, the world is a temporal phenomenon", is the conclusion, but the syllogism actually does not include it or its contrary.

Baydawi said:

L 43, T 20

The hypothetical exceptive syllogism

In the first [of these two types of syllogism, namely, the 'hypothetical exceptive syllogism' which does include the conclusion statement or its actual contrary],

a. a valid proof demonstration inference may be made

1. from the presence of [true fact in] the premise to its presence in the conclusion, or,

³⁴ MS gl: "If A should be B."

³⁵ MS gl: This being, "But A is B."

³⁶ The scribe of the MS adds here, "if" [aw law lam yashtamil].

2. from the absence [of true fact in the premise] to its absence in the conclusion, or,

3. from the presence of [true fact in] one of two incompatible premises to its absence in the other [premise], or,

4. from the absence [of true fact in one [of two incompatible premises] to its presence [in] the other [premise].

b. [The hypothetical exceptive syllogism therefore] will include a [first] premise that governs either

1. by means of an 'inherent necessity' conjoined between the two [entities, premise and conclusion], this [type of premise] being called a '*conditional conjunctive premise*';³⁷ or,

2. [the hypothetical exceptive syllogism will include a first premise that governs] by means of an 'inherent incompatibility' [between the premise and conclusion], this [type of premise] being called a '*conditional disjunctive premise*'.³⁸ [The conditional disjunctive premise] is—

a) 'real truth' if the two [i.e., premise and conclusion] are absolutely incompatible, [and it is]

b) 'impossible to match' if the two of them are incompatible only in statements of true fact, and

c) 'impossible to isolate'³⁹ if the two are incompatible only in statements regarding a falsehood.

c. In addition, there is another [second, premise] that will provide a valid demonstration—

1. proving the position of the [first] premise, or,

2. proving [the position of] the incompatible [first premise] absolutely, or,

3. [proving the position of the incompatible first premise] in affirming true fact only, or,

4. negating the conclusion, or,

5. [negating the position of] the incompatible [first] premise absolutely, or,

6. [negating the position of the incompatible first premise] in [its] negation only.

³⁷ An 'inherent necessity' [mulāzamah]; a conditional conjunctive premise [sharṭīyah muttasilah].

³⁸ An 'inherent incompatibility' = [mu'anadah] is contrasted with the 'inherent necessity' above; conditional disjunctive premise = [sharṭīyah munfaṣilah].

³⁹ Impossible to match = [māni'at al-jam']; impossible to isolate = [māni'at al-khulūw].

This [other second type of premise] is called a '[conditional] *exceptive premise*'.^{40,41}

Isfahani says:

L 43, T 20, MS 23a

The hypothetical exceptive syllogism

In the first type [of syllogism], namely, the '*hypothetical exceptive syllogism*',

a. a valid proof demonstration inference may be made

1. from the presence [of true fact] in the premise to its presence in the proved conclusion, as when we say, "If this should be a man, then it would be a living being, but indeed, it is a man, so therefore it is a living being." Or,

2. from the absence [of true fact] in the conclusion to its absence in the premise, as it might be said of the aforementioned example, "But indeed, it is not a living being, so therefore it is not a man." Or,

3. from the presence [of true fact] in one of two incompatible premises to its absence in the other. Or,

4. from the absence [of true fact] in one of two incompatible premises to its presence in the other, as when we might say, "Either this number is even or it is odd, but indeed, it is even, so it is not odd"; [or,] "but it is odd, so it is not even"; [or,] "but it is not even, so it is odd"; [or,] "but it is not odd, so it is even."

b. Thus, on the foregoing basis, the '*hypothetical exceptive syllogism*' will include a [first] premise that governs [either]

1. by means of an '*inherent necessity*' conjoined between the premise and the conclusion, ([i.e.],—the presence [of true fact] in the premise implying its presence in the conclusion, and its absence in the conclusion [implying] its absence in the premise,—) this [type of premise] being called a '*conditional conjunctive premise*', and it is plainly conditioned by the fact that it is decisively affirmative, universal, and conjoined [with the conclusion] by an '*inherent necessity*',⁴² ([i.e.],—

⁴⁰ [Conditional] exceptive premise = [shartīyah istithnā'ī].

⁴¹ A.-M. Goichon's *Lexique de la Langue Philosophique d'Ibn Sina*, No. 611:2 [Qiyas istithnā'ī], quotes from Ibn Sina: "The '*hypothetical*' syllogism is composed of two premises, one of which is '*conditional*', and the other being the positing or removal of one of their two parts; this [second] premise is called the exception [al-mus-tathnāh] that is followed by the conclusion."

⁴² '*Inherent necessity*' (here it is) [luzūmiyah], (while some lines above, clause a) it is) [mulāzamah]. This is the '*inherent necessity*' that functions within the syllogism.

the presence [of true fact] in the premise implying its presence in the conclusion, and its absence in the conclusion implying its absence in the premise); or,

2. by means of an 'inherent incompatibility' between the two entities [premise and conclusion], ([i.e.,—the presence [of true fact] in one of these two implying its absence in the other, or its absence in L 44 one of them implying its presence in the other,—) this [kind of] premise being called a '*conditional disjunctive premise*', which

a) is 'real truth' if the incompatibility [i.e., between premise and conclusion] is absolute, that is, in affirming a true fact and in negating a falsehood; that is, both [premise and conclusion] may not be affirmed at the same time and both may not be negated at the same time, as in the example that was given.

b) [This type of premise] is 'impossible to match' if [the premise and conclusion] are incompatible only in a statement of a true fact, that is, they do not both [at once] state a true fact or both negate a falsehood; it is as when we might say, "Either this thing is a man, or it is a horse",

c) and is 'impossible to isolate' when the premise and conclusion are incompatible only in a negation regarding a falsehood, that is, they are not both false and both true, as when we say, "Either this thing is not a man, or it is not a horse."

d) The '[conditional] disjunctive premise' is plainly conditioned by the fact that it should be decisively affirmative, universal, and [disjoined from the conclusion by an] inherent incompatibility ([i.e.,—the presence [of true fact] in one of the two parts implying its absence in the other, or its absence in one implying] its presence in the other—).

c. In addition, the hypothetical exceptive syllogism will include another [second type of] premise that will provide a valid demonstration—

1. proving the position of the [first] premise in the '[conditional] conjunctive [premise' case], or,

2. proving the position of the incompatible [first] premise absolutely, that is, affirmatively and negatively in the 'real truth', '[conditional disjunctive premise' case] or,

3. [proving the position of the incompatible first premise] only in affirming true fact in the 'impossible to match [premise' case], or,

4. negating the conclusion in the '[conditional] conjunctive [premise' case], or,

5. negating the [position of the] incompatible [first] premise absolutely, that is, affirmatively and negatively in the 'real truth' ['conditional disjunctive premise' case], or,

6. negating the [position of the] incompatible [first] premise only in its negation [of falsehood] in the 'impossible to isolate [premise' case].

This other [second type of] premise is called a '*conditional* *exceptive* *premise*'.

Baydawi said:

L 44, T 21

The categorical connective syllogism

The second type of syllogism [namely, the categorical connective syllogism] has four aspects [i.e., figures], because in it there must be an entity that will relate to both [major and minor] terms of the desired conclusion, this entity being called the middle term. The subject in the conclusion [statement] is the minor term and the predicate is the major term. The premise containing the minor term is the minor premise⁴³ while that containing the major term is the major premise.⁴⁴ Thus, the middle term [i.e., according to the four figures] may be either

- a. predicate in the minor premise and subject in the major premise, or,
- b. predicate in them both, or,
- c. subject in them both, or,
- d. subject in the minor premise and predicate in the major premise.

Isfahani says:

L 44, T 21, MS 23b

The categorical connective syllogism

When [Baydawi] finished his discussion of the 'hypothetical exceptive syllogism', he began to discuss the 'categorical connective syllogism'. In accordance with the kind of judgments of which it is composed, this is called either the 'categorical [syllogism]', that is

⁴³ The scribe of L skipped the preceding statement.

⁴⁴ Middle term = [al-awsat]; major term = [al-akbar]; minor term = [al-aṣghar]; minor premise = [al-ṣuḡhra]; major premise = [al-kubra]. These are the terms used regularly in logic.

composed purely of categorical propositions,⁴⁵ or the 'conditional [syllogism]', that is composed [either] purely of conditional propositions, or of both [conditional] and categorical propositions. Our author gives his attention only to the 'categorical connective syllogism'.

Now, every 'categorical connective syllogism' must have two premises that have a commonality in some entity that will relate to both terms of the desired conclusion. This entity is called a 'middle term', because it mediates between the two terms of the conclusion. One of the two premises will stand alone as the subject in the conclusion [statement], it being called the 'minor term' because usually L 45 it is more specific than the predicate; and the other premise will stand alone as the predicate in the conclusion statement, it being called the 'major term' because usually it is more general than the subject. The premise in which is the minor term is called the 'minor premise' from the fact that it comprises the minor term, and the premise in which is the major term is called the 'major premise' from the fact that it comprises the major term.

It is as when we say, "Every man is a living being, and every living being is sensate." Thus, "every man is sensate" is the conclusion, while 'man' is the minor term, and our statement, "Every man is a living being" is the minor premise; also, 'sensate' is the major term, and our statement, "Every living being is sensate", is the major premise, while 'living being' is the middle term.

The judgmental statement that is a part of the syllogism is called a 'premise', and that into which the premise may be analyzed, as a 'subject' and a 'predicate', aside from the copula, is called a 'limiting term of the syllogism'. Thus, every syllogism has three 'limiting terms', minor, middle and major.⁴⁶

The structure of the relationship of the middle term to the minor and major terms both as the posited 'subject'⁴⁷ and as the 'predicate' is called a 'figure', while the interconnectional pattern of minor premise with major premise [is called] a 'context' or a mood'.⁴⁸

The statement of conclusion is called the 'logical goal' when [the reasoning process] is transferred from it [i.e., the statement of conclusion]

⁴⁵ [al-ḥamlīyāt al-ṣīrfah].

⁴⁶ [thalathat ḥudūd al-aṣghar wa-al-awsaṭ wa-al-akbar].

⁴⁷ MS gl: i.e., the middle term is the subject for them.

⁴⁸ Posited subject [wadʿ]; predicate [ḥaml]; figure [shakl]; interconnectional pattern of minor and major premise [iqirān]; context [qarīnah]; mood [ḍarb].

to the syllogistic structure, and [it is called] the 'result' [i.e., of the reasoning process] MS 24a when the reasoning is transferred [back] from the syllogism to the statement of conclusion.⁴⁹

The 'figures' [of the categorical connective syllogism] are four in number, because the middle term will be [one of the following]:

Figure 1.—[The middle term will be] predicate in the minor premise and subject in the major premise,—this 'Figure 1' being called the first because a) its productivity is intuitive, b) it is the basis on which the others stand, c) it will produce [a validation for] the four [logically inferred] desired goals, and d) [it will produce] the most extensive of these logical goals.

Figure 2.—Or, the middle term will be predicate in both of them, that is, in both the minor and major premises,⁵⁰ this 'Figure 2' being made the second a) because it has a commonality with Figure 1 in the minor premise, this being more extensive than the major premise as it comprises the subject of the logical goal which in turn is more extensive than its predicate, and b) because it produces the inference of a universal which is more extensive than a particular even though the universal be negative and the particular positive.

Figure 3.—Or, the middle term will be subject in both the major and minor premises,⁵¹ this 'Figure 3' being made the third because it has a commonality with Figure 1 in one of its premises, namely, the major premise.

Figure 4.—Or, the middle term will be subject in the minor premise and predicate in the major premise,⁵² this 'Figure 4' being made the fourth because it differs from Figure 1 in both of its premises.

⁴⁹ Regarding his [Isfahani's] expression, "from the syllogism back to it [the statement of conclusion]": one can say that he first posits the desired goal, then arranges evidence to prove and imply it [as true], and as long as it would be in that frame of reference [ka-dhālik] it would be [called] the 'desired goal'; thus, when the syllogistic reasoning would be completed it would [transfer back out of the syllogism and] be [called] the 'result' [of the reasoning process]. [from al-Sharīf al-Jurjānī's glosses on Isfahani's commentary]

⁵⁰ MS gl: As when we say, 'All men are living beings [but] no stone is a living being' and this results in our saying, 'and so no man is a stone'.

⁵¹ MS gl: As when we say, 'All men are living beings' and 'all men are rational'; this produces 'some living beings are rational'.

⁵² MS gl: As when we say, 'All men are living beings and all rational beings are men', and this produces, 'some living beings are rational'.

Baydawi said:

L 45, T 21

Figure 1

Figure 1 will provide a valid demonstration—⁵³

- 1a) when the middle term is affirmed [either] by all of the minor term [SaM],
- 1b) or [when the middle term is affirmed] by some of [the minor term] [SiM],
- 2a) and when the major term is affirmed by L 46 all that has been affirmed of the middle term [MaP],
- 2b) or, the negative of this [i.e., when the major term is negated by all that has been affirmed of the middle term] [MeP],

—[all 1 and 2] proving that the major term is affirmed [either] by all of the minor term or by some of [the minor term], or [the major term] is negated [either] by all of [the minor term] or by some of [the minor term].

[That is: [MaP & SaM = SaP]/[AAA-1], and
 [MaP & SiM = SiP]/[AII-1], and
 [MeP & SaM = SeP]/[EAE-1], and
 [MeP & SiM = SoP]/[EIO-1].]

Isfahani says:

L 46, T 21, MS 24a

Figure 1

The moods that can possibly be assembled in each of the four figures—according to their quantity, namely, universality and particularity, and their quality, namely, affirmation and negation—are sixteen in number, the result of multiplying the four minor premises, affirmative-universal [Sa], affirmative-particular [Si], negative-universal [Se], and negative-particular [So], by the corresponding four major premises.

⁵³ The following standard signs will be used to represent the syllogism, its moods and figures: P = Major term (from Predicate), M = Middle term, S = Minor term (from Subject) [N.B.: the code used in the Arabic texts is: [Alif] = Major term, [Bā'] = Middle term, [Jīm] = Minor term.]

"All are" = a; "No are" = e; "Some are" = i; "Some are not" = o.

Examples: "MaP & SaM = SaP": All M is P, all S is M, therefore all S is P.

"AAA-1" Mood is three "all are" propositions—two premises and the conclusion; Figure is 1.

a. Figure 1, if it is to be productive [of a valid proof demonstration], stipulates that in terms of its quality the minor premise should be affirmative.

[This is] because if it should be negative, then the middle term would be stripped from the minor term, the minor term would have no place under the middle term, and the governance of the major term would not extend beyond the middle term, either affirmatively or negatively to the minor term.

[This is] because the governance of the major term is upon that which the middle term actually affirms, and the minor term would not be a part of that which the middle term actually affirms, on the supposition that it would be stripped from the minor term.

b. Moreover, Figure 1, if it is to be productive [of a valid proof demonstration], stipulates that in terms of its quantity the major premise should be universal.

[This is] because if it should be particular, then the governance of the major term would apply only to part T 22 of that which the middle term actually affirms, and there is no implication that the minor term would be included in that part. And even if the middle term should affirm [the minor term] as true still there would be no implication that the governance would extend from the middle term to MS 24b the minor term.

Thus, with respect to the affirmation of the minor premise, eight moods drop out [of consideration], these being the result [from multiplying] each of the two negative minor premises [with] the four predetermined conditional propositions⁵⁴ as major premises.

With respect to the universality of the major premise, four other [possible moods] drop out [of consideration], these being the result [from multiplying] the affirmative and negative particular major premises with the two affirmative [i.e., universal and particular] minor premises.

So [in Figure 1] there remain four productive moods: the minor premise affirmative both universal and particular, and each of these with the major premise affirmative universal and negative universal, i.e., [AAA-1, AII-1, EAE-1, EIO-1].

⁵⁴ See A.-M. Goichon's discussion of [ḥaṣr], [maḥṣūr] and [qadīyah maḥṣūrah] in her *Lexique de la Langue Philosophique d'Ibn Sina*, pp. 72–73, and 309. These are propositions in which the quantity is predetermined by the use of the terms, 'all', 'none', and 'some', and also the terms, 'always', 'never', 'not at all', and 'sometimes'.

Summary of figure 1

Figure 1 will therefore provide a valid demonstration—

- 1a) when the middle term is affirmed by all of the minor term [SaM], this being the minor premise affirmative universal, as we say, “All C is B”,⁵⁵ or,
- 1b) [when] the middle term is affirmed by some of the minor term [SiM], this being the minor premise affirmative particular, as we say, “Some C is B”,⁵⁶
—each of these (1a and 1b) being
- 2a) when the major term is affirmed by all that L 47 has been affirmed of the middle term [MaP], this being the major premise affirmative universal, as we say, “All B is A”,⁵⁷ or,
- 2b) when the major term is negated by all that has been affirmed of the middle term [MeP], this being the major premise negative universal, as we say, “No B is A”,⁵⁸
—[all 1 and 2] proving:
that the major term is affirmed by all of the minor term [SaP], or
[that the major term is affirmed] by some of [the minor term] [SiP], or,
that [the major term] is negated by all of the minor term [ScP],
or
[that the major term is negated] by some of [the minor term] [SoP].

In other words,

[Figure 1] will provide a valid demonstration—

- 1a) when the middle term is affirmed by all of the minor term, and
- 2a) [when] the major term is affirmed by all that has been affirmed of the middle term,
—[all 1a and 2a] proving that the major term is affirmed by all of the minor term, as we say, “All C is B, and all B is A, so [all] C is A”,⁵⁹
or, [Figure 1] will provide a valid demonstration—

⁵⁵ MS gl: As, ‘All men are living beings’.

⁵⁶ MS gl: As, ‘Some living beings are men’.

⁵⁷ MS gl: As, ‘All living beings are sensate’.

⁵⁸ MS gl: As, ‘No living being is a stone’.

⁵⁹ MS gl: I.e., “All men are living beings, and all living beings walk, therefore all men walk.”

Adjusting the syllogism to western standard order [i.e., major premise first]: [MaP & SaM = SaP]/[AAA-1].

1b) when the middle term is affirmed by some of the minor term,
and

2a) [when] the major term is affirmed by all that has been affirmed
of the middle term,

—[all 1b and 2a] proving that the major term is affirmed by some
of the minor term, as we say, “Some C is B, and all B is A, so
some C is A”,⁶⁰

or, [Figure 1] will provide a valid demonstration—

1a) when the middle term is affirmed by all of the minor term, and

2b) [when] the major term is negated by all that has been affirmed
of the minor term,

—[all 1a and 2b] proving that the major term is negated by all
of the minor term, as we say, “All C is B, and no B is A, so no C
is A”,⁶¹

or, [Figure 1] will provide a valid demonstration—

1b) when the middle term is affirmed by some of the minor term,
and

2b) [when] the major term is negated by all that has been affirmed
of the middle term,

—[all 1b and 2b] proving that the major term is negated by some
of the minor term, as we say, “Some C is B, and no B is A, so
some C is not A.”⁶²

[That is: [MaP & SaM = SaP]/[AAA-1], and
 [MaP & SiM = SiP]/[AII-1], and
 [MeP & SaM = SeP]/[EAE-1], and
 [MeP & SiM = SoP]/[EIO-1].]

Thus, the author’s expression, “proving that the major term is
affirmed [either] by all of the minor term” is linked to his expres-
sion, “will provide a demonstration when the MS 25a middle term
is affirmed [either] by all of the minor term, and when the major
term is affirmed by all that has been affirmed of the middle term.”

⁶⁰ MS gl: I.e., “Some living beings are men, and all men are rational, therefore
some living beings are rational.”

Adjusting the syllogism to western standard order: [MaP & SiM = SiP]/[AII-1].

⁶¹ MS gl: As, ‘Every stone is mineral, but no mineral is rational, therefore no
stone is rational’.

As adjusted: [MeP & SaM = SeP]/[EAE-1].

⁶² MS gl: As, ‘Some living beings are men, and no men are horses, therefore
some living beings are not horses’.

As adjusted: [MeP & SiM = SoP]/[EIO-1].

[Baydawi's] expression, "or by some of it", (that follows his statement, "proving that the major term is affirmed [either] by all of the minor term",) is attached to [the phrase,] "all of the minor term." But its meaning, "proving that the major term is affirmed by some of the minor term", is derivatively linked to his expression (1b), "or by some of it", (that follows his statement, "when the middle term is affirmed [either] by all of the minor term",) and to his expression (2a), "and when the major term is affirmed by all that has been affirmed of the middle term;" and the meaning of it is, "or, [Figure 1] will produce a demonstration—when the middle term is affirmed by some of the minor term, and when the major term is affirmed by all that has been affirmed of the middle term,—proving that the major term is affirmed by some of the minor term."⁶³

[Baydawi's] expression, "or [the major term] is negated [either] by all of [the minor term]", (that is attached to his statement, "proving that the major term is affirmed [either] by all of the minor term",) is linked to his expression, (a) "the middle term is affirmed [either] by L 48 all of the minor term", and to his expression, (b) "or [the major term] is negated [either] by [all of the minor term]." The meaning of this is, "or, [Figure 1] will provide a demonstration—when the middle term is affirmed by all of the minor term, and when the major term is negated by all that has been affirmed of the middle term,—proving that the major term is negated by all of the minor term."⁶⁴

[Baydawi's continuing] expression, "... or [the major term is negated] by some of [the minor term]", (this other statement being attached to [his phrase], "[or the major term is negated either by] all of [the minor term]"), is linked to his statement, "[or when [the middle term] is affirmed] by some of [the minor term]" (1b), (that follows his statement, "when the middle term is affirmed [either] by all of the minor term"), and to his statement, "or [the major term] is negated by [all of the minor term] (2b)." The meaning of this is, "Or, [Figure 1] will provide a demonstration—when the middle term is affirmed by some of the minor term (1b), and when the major

⁶³ MS gl: 'Some living beings are men, and all men are rational, therefore some living beings are rational'.

As adjusted: [MaP & SiM = SiP]/[AIL-1].

⁶⁴ MS gl: 'Every stone is mineral, and no mineral is rational, therefore no stone is rational'.

As adjusted: [McP & SaM = SeP]/[EAE-1].

term is negated by all that has been affirmed of the middle term (2b),—proving that the major term is negated by some of the minor term.⁶⁵

Baydawi said:

L 48, T 22

Figure 2

Figure 2 will provide a valid demonstration—

- 1a) when the middle term is affirmed by all of the minor term [SaM], and
- 1b) [when the middle term is] negated by all of the major term [PeM]; or,
- 2a) when the case is the reverse of this [i.e., when the middle term is negated by all of the minor term [ScM], and
- 2b) when [the middle term] is affirmed by all of the major term] [PaM],

—[all 1 and 2] proving that the major term is negated by all of the minor term.

[That is: [PeM & SaM = SeP]/[EAE-2], and
 [PaM & ScM = SeP]/[AEE-2].]

Or, [Figure 2 will provide a valid demonstration]—

- 3a) when the middle term is affirmed by some of [the minor term] [SiM], and
- 3b) when [the middle term] is negated by all of the major term [PeM]; or,
- 4a) when [the middle term] is negated by some of the minor term [SoM], and
- 4b) when [the middle term] is affirmed by all of the major term [PaM],

—[all 3 and 4] proving that the major term is negated by some of the minor term.

[That is: [PeM & SiM = SoP]/[EIO-2], and
 [PaM & SoM = SoP]/[AOO-2].]

This stipulates that the time of the negation and the affirmation should be the same, or that it should be one of the two continuously.

⁶⁵ MS gl: 'Some living beings are men, and no men are horses, therefore, some living beings are not horses'.

As adjusted: [MeP & SiM = SoP]/[EIO-1].

Isfahani says:

L 48, T 22, MS 25a

Figure 2

a. Figure 2, if it is to be productive [of a valid proof demonstration], stipulates that there should be a difference between its two premises, in [that one should be] affirmative and [the other] negative.

[This is because] it would be admissible that propositions in agreement⁶⁶ as well as propositions in disagreement⁶⁷ should have a commonality either in affirming a single thing together⁶⁸ or in negating a single thing together. In such a case, the syllogism in Figure 2 might be composed of two affirmative premises in some matters together with an agreement between the two terms,⁶⁹ and in some other matters together with a difference between them; likewise, [the syllogism] might be composed of two negative premises in some matters together with an agreement between the two [terms], and in some other matters together with a difference between them.

However, there would be no implication from either of them⁷⁰ of any assigned inference,⁷¹ this [absence of implication] being [the kind of syllogistic] 'difference' [i.e., between propositions] that is necessarily sterile of any conclusion.

It would be as we say, "Every man is a living being, and every rational being is a living being", and truly there would be a coordinating statement, namely, "every man is a rational being." Now, if the major premise should be exchanged for our saying, "and every horse is a living being," then truly there would be a differentiating statement, namely, "No man is a horse."

And, it would be as we say, "No man T 23 is a horse, MS 25b and no rational being is a horse"; and truly there would be a coordinating statement, namely, our saying, "every man is a rational being." Now, if the major premise should be exchanged for our saying, "no donkey is a horse", then truly there would be a differentiating statement, namely, "no man is a donkey."

⁶⁶ L gl: I.e., subjects of minor and major premises that are equal and coordinate in affirmation, as 'man' and 'rational being'.

⁶⁷ L gl: I.e., subjects that are neither equal nor coordinate in affirmation, as 'man', 'horse' and 'donkey'.

⁶⁸ MS gl: This being the middle term.

⁶⁹ MS gl: The agreement or difference in terms, refers to the logical goal, these being the minor and major terms [i.e., as subject and predicate of the conclusion].

⁷⁰ I.e., from the statements either of coordination or differentiation.

⁷¹ Assigned inference ['ala' al-ta'yīn].

b. Furthermore, [i.e., another condition upon which Figure 2 will result in a valid proof demonstration is that] the major premise should be universal.

[This is] because, if it should be L 49 particular, then it would imply the [kind of syllogistic] difference [between propositions] that is necessarily sterile of any conclusion.

It would be as we say, "Every man is rational, and some living beings are not rational", or, "...some horses are not rational." However, in the first example, truly there would be a coordinating statement, namely, "Every man is a living being", and in the second example, there would be a differentiating statement, namely, our saying, "No man is a horse."

And, it would be as we say, "No man is a horse, and some living beings are horses", or, "...some neighing animals are horses", and truly in the first example there would be a coordinating statement, namely, our saying, "Every man is a living being", and in the second example there would be a differentiating statement, namely, our saying, "No man is a neighing animal."

Thus, by reason of the second condition, eight moods drop out of consideration, these resulting from [multiplying] each of the two particular major premises with the four predetermined conditional propositions [i.e., predetermined by the terms 'all', 'no', 'some are', etc.] as minor premises. And by reason of the first condition, four other moods drop out of consideration, these resulting from [multiplying] the affirmative universal major premise with each of the two affirmative minor premises, and from [multiplying] the negative universal major premise with each of the two negative minor premises.

Thus, [in Figure 2] there remain four productive moods:

- a) affirmative universal minor premise with negative universal major premise,
- b) negative universal minor premise with affirmative universal major premise,
- c) affirmative particular minor premise with negative universal major premise,
- d) negative particular minor premise with affirmative universal major premise.

Summary of figure 2

Figure 2 will therefore provide a valid demonstration—

- 1a) when the middle term is affirmed by all of the minor term [SaM], and
- 1b) [when] the middle term is negated by all of the major term [PeM],

as we say, “All C is B, and no A is B”,

or, [Figure 2 will provide a valid demonstration] by the reverse of the foregoing, that is,—

- 2a) when the middle term is negated by all of the minor term [SeM], and
- 2b) [when] the middle term is affirmed by all of the major term [PaM],

as we say, “No C is B, and all A is B”,

—[all 1 and 2] proving that the major term is negated by all of the minor term, this being our saying, “No C is A.”

[That is: [PeM & SaM = SeP]/[EAE-2], and
 [PaM & SeM = SeP]/[AEE-2].]

[Baydawi's] expression, “proving that the major term is negated by all of the minor term”, is linked to the first two moods, for the resulting inference of both of them is one and the same, namely, negative universal.

Or, [Figure 2] will provide a demonstration—

- 3a) when the middle term is affirmed by some of the minor term [SiM], and
- 3b) [when] the middle term is negated by all of the major term [PeM],

as we say, MS 26a “Some C is B, and no A is B”;

—or, [Figure 2] will provide a demonstration—

- 4a) when the middle term is negated by some of the minor term [SoM], and
- 4b) [when] the middle term is affirmed by all of the major term [PaM],

as we say, “Some C is not B, and all A is B”,

—[all 3 and 4] proving that the major term is negated by some of the minor term, as we say, “Some C is not A.”

[That is: [PeM & SiM = SoP]/[EIO-2], and
 [PaM & SoM = SoP]/[AOO-2].]

Thus, [the author's] expression, “proving that the major term is negated by some of the minor term”, is linked to the last two moods,

L 50 for the inference of both of them is the same, namely, a negative particular [proposition].

The condition upon which these four moods would produce [a valid proof demonstration] is that there should be one of the two [following sets of] circumstances: either a) the time of both the affirmation and the negation would be one and the same, or, b) that one of the two premises would be validated as continuing [in existence], either b1) continuing in accordance with its essence, or b2) continuing⁷² in accordance with its descriptive characteristic. This is so because if one of the two sets of circumstances should not be true, then the syllogism [of Figure 2] would not be productive.

It would be as we say, "The whole moon is eclipsed necessarily at the time the earth is interposed between it and the sun, but [this is] not continuously", and, "None of the moon is eclipsed⁷³ at the time of the lunar quarter⁷⁴ [i.e., because of the earth being] between it and the sun, but [this is] not continuously", together with a false proposition, as we might say, "Some of the moon is not the [whole] moon as a general possibility."

Baydawi said:

L 50, T 23

Figure 3

Figure 3 will provide a valid demonstration—

- 1ab) when the two terms [i.e., major and minor] are affirmed by all of the middle term [MaP & MaS], or,
- 2a) when one of them [is affirmed by [all of the middle term] [MaP or MaS], and
- 2b) [when] the other [is affirmed] by some of [the middle term] [MiS or MiP],

—[all 1 and 2] proving that the major term is affirmed by some of the minor term.

[That is: [MaP & MaS = SiP]/[AAI-3], and
 [MaP & MiS = SiP]/[AII-3], and
 [MiP & MaS = SiP]/[IAI-3].]

Or, [Figure 3 will provide a valid demonstration]—

⁷² In T the third occurrence of [al-dawām] is misspelled [al-dām].

⁷³ The MS alone adds here, "necessarily" [bi-al-ḡarūrah].

⁷⁴ Lunar quarter [al-tarḡī].

- 3a) when the minor term is affirmed by all of [the middle term] [MaS], and
- 3b) [when] the major term is negated by all of [the middle term] [MeP], or
- 3c) [when the major term is negated] by some of [the middle term] [MoP], or
- 4a) when [the minor term] is affirmed by some of [the middle term] [MiS], and
- 4b) [when] the major term is negated by all of [the middle term] [MeP],

—[all 3 and 4] proving that the major term is negated by some of the minor term.

[That is: [MeP & MaS = SoP]/[EAO-3], and
 [MoP & MaS = SoP]/[OAO-3], and
 [MeP & MiS = SoP]/[EIO-3].]

Isfahani says:

L 50, T 23, MS 26a

Figure 3

Figure 3, if it is to be productive [of a valid proof demonstration], stipulates 1) that the minor premise should be affirmative, and 2) that one of the two [i.e., major and minor premises] should be universal.

a. The minor premise should be affirmative, because if it should be negative then it would imply the [kind of syllogistic] ‘difference’ [i.e., between propositions] that is necessarily sterile of any conclusion.

It would be as we say, “No man is a horse, and [so] every man is a living being”, or, “[and so] every man is a rational being”, and truly, in the first example there would be a coordinating statement, namely, “Every horse is a living being”, and in the second example there would be a differentiating statement, namely, “No horse is a rational being.”

But if the major premise should be exchanged for our saying, “No man is a neighing animal”, or, “no man is a donkey”, then the major premise would become negative, and truly in the first example there would be a coordinating statement, namely, “Every horse is a neighing animal”, and in the second example there would be a differentiating statement, namely, “No horse is a donkey.”

b. Further, [in Figure 3] one of the two premises should be universal, because if they both should be particular then it would imply the [kind of syllogistic] ‘difference’ [i.e., between propositions] that is necessarily sterile of any conclusion.

It would be as when we say, "Some living beings are men, and [so] some living beings are rational beings", or, "[and so] some living beings are horses", and truly in the first example there would be a coordinating statement, namely, "Every man is a rational being", and in the second example there would be a differentiating statement, namely, "No man is a horse."

But if the major premise should be exchanged for our saying, "Some living beings are not rational beings", or, "Some MS 26b living beings are not horses", then the major premise would become negative, and truly in the first example there would be a coordinating statement, and in the second example there would be a differentiating statement.

Thus, ten moods would fall away [out of consideration]: eight from the first condition, these resulting from [multiplying] the two [i.e., universal and particular] negative minor premises by the four predetermined conditional propositions [i.e., predetermined by the terms 'all', 'no' and 'some', etc.] as major premises, and two moods from the second condition, these being the two moods resulting from [multiplying] the affirmative particular T 24 minor premise with the two [affirmative and negative] particular major premises. L 51

So then there are six moods that are productive [i.e., of a valid proof demonstration, namely], the minor premise affirmative universal [multiplied] with the four predetermined conditional propositions as major premises, and the minor premise affirmative particular [multiplied] with the two [i.e., affirmative and negative] universal [major premises].

Now, this Figure 3 will not produce anything except a particular proposition, because the most specific moods of this figure are the two affirmative universals,⁷⁵ the two universals being with the major premise negative. These two will not produce a universal proposition⁷⁶ because of the possibility that the minor term might be more general than the major term, as when we say, "All men are living beings, and [so] all men are rational", or, "[and so] no men are horses." However, it truly should be, in the first example, "Some

⁷⁵ MS gl: I.e., the minor and major affirmative universals, as we say, "All men are living beings", and "all men are rational beings."

⁷⁶ MS gl: Because it is impossible for a more specific [premise] to affirm every individual case of a more general [premise], or to negate it.

living beings are rational", and in the second example, "Some living beings are not horses."

Thus, if these two [universal] moods should not produce a universal, then the rest⁷⁷ would not produce [one], since [these two moods] are more specific than the rest of the moods. The first example⁷⁸ is more specific than any mood composed of two affirmative [premises],⁷⁹ and the second example⁸⁰ is more specific than any mood composed of an affirmative and a negative [premise]. And as long as the more specific [premises] will not produce a certain thing, the more general [premises] will not produce it, otherwise, the more specific [premises] would have produced it. This is because the resulting inference of a more general [premise] is [also] its own concluding consequent; and the more general being a concluding consequent of the more specific, the consequent of a consequent would be a consequent.⁸¹

Summary of figure 3

Figure 3 will thus provide a valid demonstration—

1a) when both the minor and major terms are affirmed by all of the middle term [MaS and MaP],⁸²

as we say, "All B is C, and all B is A", or

2a) when one of the terms is affirmed by all of the middle term [MaP or MaS], and

2b) [when] the other term is affirmed by some of the middle term [MiS or MiP];

this latter statement [i.e., 2a & 2b)] having two aspects, that is, [Figure 3] will provide a valid demonstration—

⁷⁷ L: [al-bāqiyah]; T and MS Garrett 989Ha: [al-bāqī]; the MS: [al-bawāqī].

⁷⁸ MS gl: I.e., two affirmative universals are more specific than a minor premise affirmative particular with [lit.: and] a major premise affirmative universal, or [than] a minor premise affirmative universal with a major premise affirmative particular.

⁷⁹ MS gl: I.e., a minor premise affirmative universal a major premise affirmative particular, and the reverse.

⁸⁰ MS gl: I.e., a mood composed of an affirmative universal and a negative universal, as we say, "All men are living beings, and [so] no man is a horse."

⁸¹ I.e., [lāzim al-lāzim lāzim]; the MS supplies a gloss for each of these three terms: 1) [natījah], 2) [a'amm], 3) [akhaṣṣ], which may be joined to read, "The resulting inference of a more general [proposition] is a more specific [proposition]."

⁸² MS gl: This is a reference to the first mood of Figure 3, as when we say, "Every man is a living being and every man is rational—and this produces—Some living beings are rational." [MaP & MaS = SiP]/[AAI-3]

- 2a1) when the minor term is affirmed by all of the middle term [MaS],⁸³ and
- 2b1) [when] the major term is affirmed by some of the middle term [MiP],—just as if the major premise in the example given should be exchanged for our saying, “Some B is A”;
and [Figure 3] will provide a valid demonstration—
- 2a2) when the major term is affirmed by all of the middle term [MaP], and
- 2b2) [when] the minor term is affirmed by some of the middle term [MiS],—just as if the minor premise [in the example given above] should be exchanged for our saying, “Some B is C”,
—[all 1 and 2] proving that the major term is affirmed by some of the minor term.

[That is: [MaP & MaS = SiP]/[AAI-3], and
 [MiP & MaS = SiP]/[IAI-3], and
 [MaP & MiS = SiP]/[AII-3].]

In other words, [Figure 3] will provide a valid demonstration [when it is done] by means of the three foregoing moods, all proving that the major term is affirmed by some of the minor term, as when we say, “Some C is A.”

Or, [Figure 3] will provide a valid demonstration—

- 3a) when the minor term is affirmed by all of the middle term [MaS], and
- 3b) [when] the major term is negated by all MS 27a of the middle term [McP], or
- 3c) [when] the major term is negated by some of the middle term [MoP],
as when we say, “All B is C, and—no B is A, or,—some B is not A.”

Or, [Figure 3] will provide a valid demonstration—

- 4a) when the minor term is affirmed by some of the middle term [MiS], and
- 4b) [when] the major term is negated by all of the middle term [McP],
as when we say, “Some B is C, and no B is A”,

⁸³ MS gl: So when the minor premise is affirmative universal and the major premise is affirmative particular it will produce [as a valid inference] the affirmative particular, as when we say, “Every living being is a sensate being and some living beings are rational—and this produces—some sensate beings are rational.”

—[all 3 and 4] proving that the major term is negated by some of the minor term.

[That is: [MeP & MaS = SoP]/[EAO-3], and
 [MoP & MaS = SoP]/[OAO-3], and
 [MeP & MiS = SoP]/[EIO-3].]

In other words, [Figure 3] will provide a valid demonstration L 52
[when it is done] by means of the three foregoing moods, [all] proving
that the major term is negated by some of the minor term, as
when we say, “Some C is not A.”

Baydawi said:

L 52, T 24

Figure 4

Figure 4 will provide a valid demonstration—

- 1a) when the minor term is affirmed by all of the middle term
 [MaS], and
- 1b) [when] [the middle term] is affirmed by all of the major term
 [PaM], or
- 2a) [when the minor term is affirmed by all of the middle term
 [MaS],] and
- 2b) [when [the middle term] is affirmed] by some of [the major
 term] [PiM],

—[all 1 and 2] proving that the major term is affirmed by some
of the minor term.

[That is: [PaM & MaS = SiP]/[AAI-4], and
 [PiM & MaS = SiP]/[IAI-4].]

Or, [Figure 4 will provide a valid demonstration]—

- 3a) when [the minor term] is affirmed by all of [the middle term]
 [MaS], and
- 3b) [when] the middle term is negated by all of the major term
 [PeM], or
- 4a) [when [the minor term] is affirmed] by some of [the middle
 term] [MiS], and
- 4b) [when the middle term is negated by all of the major term [PeM],]

—[all 3 and 4] proving that the major term is negated by some
of the minor term.

[That is: [PcM & MaS = SoP]/[EAO-4], and
 [PeM & MiS = SoP]/[EIO-4].]

Or, [Figure 4 will provide a valid demonstration]—

- 5a) when the minor term is negated by all of the middle term [MeS],
 and

5b) [when] [the middle term] is affirmed by all of the major term [PaM],

—[all 5] proving that the major term is negated by all of the minor term.

[That is: [PaM & MeS = SeP]/[AEE-4].]

Isfahani says:

L 52, T 24, MS 27a

Figure 4

Figure 4, if it is to be productive [of a valid proof demonstration], stipulates (a.) that the two lesser categories, [namely] negation and particularity,⁸⁴ should not be together, either in a single premise,⁸⁵ or in [the] two premises, equally whether they are of one kind, as when both premises are either negative or particular, or whether they are of two kinds, as when one of them is negative and the other is particular; unless of course, if the minor premise should be affirmative particular, then in that case it [i.e., Figure 4] would necessarily stipulate (b.) that the major premise should be negative universal.

a. The reason for the first stipulation, namely, that the two categories should not be together in [a Figure 4 syllogism], [and] assuming that the minor premise would not be affirmative particular, is because if the two lesser categories should be together in [one [Figure 4] syllogism], [and] assuming that the minor premise would not be affirmative particular, then it would imply the [kind of syllogistic] difference that is necessarily sterile of any conclusion.

[It would be] as when we say, “No men are horses, and no donkeys are men”, or, “no neighing animals are men.” Rightly, in the first example, there should be a differentiating statement, namely, “No horses are donkeys”, and in the second example there should be a coordinating statement, namely, “All horses are neighing animals.”

Now, if the major premise should be exchanged for our saying, “Some living beings are men”, or, “Some rational beings are men”, then the major premise would become affirmative particular and the minor premise negative universal. But rightly, in the first example there should be a coordinating statement, namely, “All horses are

⁸⁴ “Negatives and particulars are counted inferior to affirmatives and universals.” from *A Grammar of Logic*, by Alexander Jamieson. New Haven: 1822, p. 255.

⁸⁵ MS gl: Their being in one premise would be if that premise were both negative and particular.

living beings", and in the second example there should be a differentiating statement, namely, "No horses are rational beings."

It would be as when we say, "Some living beings are not men",⁸⁶ and, "All rational beings are animal beings", or, "All horses are living beings." Rightly, in the first example there should be a coordinating statement, namely, "All men are rational beings", and in the second example there should be a differentiating statement, namely, "No men are horses."

And it would be as when we say, "All rational beings are men", and "Some living beings are not rational",⁸⁷ or, "Some donkeys are not rational." Rightly, in the first example there should be coordinating statement, namely, "All men are living beings", and in the second example L 53 there should be a differentiating statement, namely, "No men MS 27b are donkeys."

These combinations⁸⁸ are more specific than those in which the two lesser categories are together, except for the one compounded of the minor premise affirmative particular with the major premise negative universal and the one compounded of the two affirmative particulars.

The combinations in which the two lesser categories are together are eleven in number:

- 1) minor premise affirmative universal & major premise negative particular,
- 2) minor premise affirmative particular & major premise negative universal,
- 3) " " " " & " " negative particular,
- 4) " " " " & " " affirmative particular,
- 5) minor premise T 25 negative universal & major premise negative universal,

⁸⁶ MS gl: This is an example of the two lesser categories being in one premise, the minor premise, since [here] the minor premise is negative particular.

⁸⁷ MS gl: This is an example of the two lesser categories being in one premise, the major premise, since the major premise is negative particular.

⁸⁸ MS gl: I.e., the four combinations, which are:

- 1) minor premise negative universal & major premise negative universal,
- 2) minor premise negative universal & major affirmative particular,
- 3) minor premise negative particular & major affirmative universal, and
- 4) minor premise affirmative universal & major premise negative particular.

- 6) " " " " & " " negative particular,
 7) " " " " & " " affirmative particular,
 8) minor premise *negative particular* & the four *preconditioned major* ones: [namely, # 8 =] minor pr. negat. partic. [& major premise affirmative universal,]
 9) " " " [& " " negative universal,]
 10) " " " [& " " affirmative particular,]
 11) " " " [& " " negative particular].

1. The first combination of those mentioned, that composed of the two negative universals [i.e., #5], is more specific [and definite]⁸⁹ than (a) the two negative particulars [#11] and (b) the minor premise negative universal & the major negative particular [#6] and (c) the minor premise negative particular & the major premise negative universal [#9].

2. The second combination of those mentioned, that composed of a minor premise negative universal & a major premise affirmative particular [#7], is more definite than [that] composed of a minor premise negative particular and a major premise affirmative particular [#10].

3. The third combination of those mentioned, that composed of a minor premise negative particular & a major premise affirmative universal [#8], is more definite than a minor premise negative particular & a major premise affirmative particular [#10].

4. The fourth combination of those mentioned, that composed of a minor premise affirmative universal & a major premise negative particular [#1], is more definite than a minor premise affirmative particular & a major premise negative particular [#3].

Now, when the most specific [and definite] one is not productive [of a valid proof demonstration] then the most general [and indefinite]

⁸⁹ L. gl: The universal is more specific [and definite] [akhaṣṣ] than the particular, because wherever there exists a universal there will exist the particular, and not wherever there exists a particular there will exist the universal.

While the adjective translated, "more definite", also means, "more specific", the sense here is of a reliable coverage of intent in reference.

one will not be productive. So it is established that nine combinations are unproductive because of the first stipulation.⁹⁰

b. The second stipulation [for the productivity of a Figure 4 syllogism], namely, that the major premise must be negative universal; if the minor premise should be affirmative particular, it is because if that should not be so then it would imply the [kind of syllogistic] difference that is necessarily sterile of any conclusion.

It would be as when we say, "Some living beings are men", and "all rational beings are living beings", or, "all horses are living beings." Rightly, in the first example there would be a statement of coordination, namely, "All men are rational", and in the second example there would be a statement of differentiation, namely, "No men are horses." This is more specific [and definite] than the two affirmative particulars. And when the more specific [and definite] are not productive then the more general [and indefinite] are not productive.

Thus there drops out [of consideration] because of the second stipulation two other moods. So [in Figure 4] there are five productive moods:

- (1-3) minor premise affirmative universal & the three [major premises, namely, affirmative universal, affirmative particular, and negative universal],
- (4) minor premise affirmative particular & major premise negative MS 28a universal,
- (5) minor premise negative universal & major premise affirmative universal.

The first four [of these] validly produce only a particular conclusion⁹¹ because of the possibility that the minor term might be more general [in extension] than the major term.

1. [The first] would be as when we say, "All men are living beings, and all rational beings are men."⁹² [#1: PaM & MaS = SiP/AAI-4]

⁹⁰ MS gl: This being that the two lesser categories should not be together [in a syllogism].

⁹¹ MS gl: Because of the impossibility of predicating a more specific [proposition] of any individual [proposition] that is more general.

⁹² MS gl: This [syllogism] does not produce the conclusion, "All living beings are rational", but rather, "Some living beings are rational", because of the impossibility of predicating what is more specific of any individual example of what is more general in extension.

2. So if there should be no productivity of a universal [proposition] L 54 in this [first] mood, then there would not be any productivity of a universal in the second one because it [i.e., the first] is more specific [and definite] than the second. [#2: PiM & MaS = SiP/IAI-4]

3. And [in the third] it would be as when we say, "All men are living beings, and no horses are men."⁹³ [#3: PeM & MaS = SoP/EA0-4]

4. And if this mood should not produce a universal proposition, then [neither] would [the fourth one] a minor premise affirmative particular with a major premise negative universal produce a universal proposition because the former mood [#3] is more specific [and definite] than the latter. [#4: PeM & MiS = SoP/EIO-4]

5. But the minor premise negative universal with the major premise affirmative universal will produce a negative universal [conclusion]. [#5: PaM & MeS = SeP/AEE-4]

Summary of figure 4

Figure 4 will produce a valid demonstration—

1a) when the minor term is affirmed by all the middle term [MaS],
and

1b) [when] the middle term is affirmed by all the major term [PaM],
as when we say, "All B is C & all A is B", or

2a) when the minor term is affirmed by all the middle term [MaS],
and

2b) [when] the middle term is affirmed by some of the major term
[PiM],

as when we say, "All B is C & some A is B",

—[all 1 and 2] proving that the major term is affirmed by some of the minor term, as when we say, "Some C is A."

In other words, [Figure 4] will produce a valid demonstration when [either of] these two moods [1ab or 2ab] is used, proving that the major term is affirmed by some of the minor term.

Or, [Figure 4] will provide a valid demonstration—

⁹³ MS gl: This [syllogism] does not produce, "No living beings are horses"; but rather it produces, "Some living beings are not horses", because of the impossibility of negating the species of all individual examples of the genus.

3a) when the minor term is affirmed by all the middle term [MaS],
and

3b) [when] the middle term is negated by all the major term [PeM],
as when we say, "All B is C & no A is B";

or, [Figure 4] will produce a valid demonstration—

4a) when the minor term is affirmed by some of the middle term
[MiS], and

4b) [when] the middle term is negated by all of the major term
[PeM],

as when we say, "Some B is C & no A is B";

—[all 3 and 4] proving that the major term is negated by some
of the minor term.

In other words, [Figure 4] will produce a valid demonstration when
[either of] these two moods [3ab or 4ab] is used, proving that the
major term is negated by some of the minor term.

Or, [Figure 4] will produce a valid demonstration—

5a) when the minor term is negated by all the middle term [MeS],
and

5b) [when] the middle term is affirmed by all the major term [PaM],

—[all of 5] proving that the major term is negated by all the
minor term.

[That is: [PaM & MaS = SiP/AAl-4], and
 [PiM & MaS = SiP/IAI-4], and
 [PeM & MaS = SoP/EAo-4], and
 [PeM & MiS = SoP/EIO-4], and
 [PaM & MeS = SeP/AEE-4].]

Baydawi said:

L 54, T 25

Summary of the types of the syllogisms

Thus, the syllogistic combinations that are productive [of a valid
proof demonstration] are twenty-three in number: four hypothetical
exceptive, and nineteen categorical connective. A discussion thor-
oughly examining them all is to be found in the books on logic.⁹⁴

⁹⁴ See the note at the end of Chapter 2 above, "Explanatory statements." A.-M. Goichon follows her discussion there (in the *En-I-2* s.v. "ḥadd") by listing a number of these books on logic available to Baydawi and Isfahani.

Isfahani says:

L 54, T 25, MS 28a

Summary of the types of the syllogisms

It is clear from what has been said⁹⁵ that the syllogistic combinations that are productive [of a valid proof demonstration] are twenty-three in number.

a. Four [of these] are ‘hypothetical exceptive’ in type.

1. Two of these four [combinations] are composed of a ‘conditional conjunctive’ that is decisively affirmative of inherent necessity,⁹⁶ and [either] asserting the factual truth of its condition,⁹⁷ or, denying the fact of what is conditioned.⁹⁸

2. Two of the four [combinations] are composed of

a) a ‘[conditional] disjunctive’ that is real and affirmative of incompatibility,⁹⁹ that is, it is ‘impossible to match’ as it affirms its incompatibility in affirming the position of one of its two parts,¹⁰⁰ and

b) a ‘[conditional] disjunctive’ that is real and affirmative of incompatibility, that is, it is ‘impossible to isolate’ L 55 as it affirms its incompatibility in negating the position of one of its two parts.¹⁰¹

b. Nineteen [combinations] are ‘categorical connective’ in type: four in Figure 1, four in Figure 2, six in Figure 3, and five in Figure 4.

A discussion thoroughly examining both explanatory statements and their parts, and argumentation and its parts and properties, MS 28b its classes and conditions, is presented¹⁰² in the books on logic. Therefore, let us confine ourselves to what [Baydawi] has set forth, so that the commentary will correspond to the text.

⁹⁵ T alone reads, “we have said” [dhakarnā].

⁹⁶ [al-sharṭīyah al-muttaṣilah al-mūjibah al-luzūmīyah].

⁹⁷ [waḍ’ muqaddamahā]. If A is, then B is; now A is, therefore B is: traditionally called “modus ponendo ponens.” Cf. *Dictionary of Philosophy*, ed. D.G. Runes, the article, “Logic, formal”, section 2: ‘Hypothetical syllogism’ etc.

⁹⁸ If A is, B is; now B is not, therefore A is not; traditionally called, “modus tollendo tollens.” Cf. *Dictionary of Philosophy*, the location cited.

⁹⁹ [al-ḥaqīqīyah al-mūjibah al-‘inādirīyah].

¹⁰⁰ MS gl: As a number will be either even or odd.

¹⁰¹ MS gl: As, the case is that either this thing is not a man, or it is not a horse.

¹⁰² The MS alone supplies “is set forth” [madhkūr].

Baydawi said:

L 55, T 25

3. *The premised materials of argumentation*

An argument may be structured either upon the basis of rationality or upon the basis of authoritative tradition.

a. *Argumentation structured on rationality*

In this first [basis of argumentation], the premises are either

1. very positive, in which case [the argument] is called 'proof' or 'proof demonstration', or they are

2. presumptive or popularly accepted, and [the argument] is called 'rhetorical', or 'hortatory', or they

3. may only resemble T 26 one of these two, and then [the argument] is called 'fallacy'.

Isfahani says:

L 55, T 26, MS 28b

3. *The premised materials of argumentation*

Topic 3 is on the materials of argumentation, namely, the judgmental propositions [i.e., premises] of which the syllogistic argument is composed.

An argument may be structured either upon the basis of rationality, in that it is a product of the intellect, without any need to draw on the oral religious tradition, or, it may be structured upon the basis of the authoritative tradition,¹⁰³ in that oral religious tradition freely enters into it.

The former is as when we say, "The universe is a possible reality and every possible reality has its cause, so the universe has a cause."

The latter is as when we say, "Whoever abandons what he has been commanded to do is disobedient, in accordance with the word of the Most High, 'Have you disobeyed my command?'" [Qur'an 20:93] and [when we say], "Every disobedient person deserves the Fire! in accordance with the word of the Most High, 'Whoever

¹⁰³ Oral religious tradition [samāʿ]; authoritative tradition [naql].

disobeys God and His Messenger thereby shall get the Fire of Hell.”
[Qur’an 72:23]

Let no one say that restriction [from one type or the other] is prohibited,—since it is admissible that an argument should be composed of both traditional and rational [elements], and thus an argument might be either rational completely or traditional completely, or composed of both these factors;—because our [i.e., Isfahani’s] position is that something ‘purely traditional’, wherein the intellect would have no entry, would be impossible. Indeed, the ‘argument’, equally whether it be structured upon the basis of ‘rationality’ or upon ‘tradition’, has [both] ‘form’¹⁰⁴ and ‘substance’.¹⁰⁵ Thus, [for example], its ‘form’ would be structured rationally, ‘tradition’ not entering into it; while the veracity of its ‘substance’ would be dependent on the intellect,¹⁰⁶ so a ‘purely traditional’ [argument] would be impossible. Thus, from this mentioned standpoint, restriction certainly applies to both the rational and the traditional [forms of argument].

Unless, of course, if it should be that what is intended by the ‘purely rational’ would be something whose two premises would be certified by the intellect, and [what is intended] by the ‘purely traditional’ would be something whose two premises would be certified by tradition; then in that case, the argument would not be restricted to the ‘purely rational’ or the ‘purely traditional’. Rather, a third division would [come to be] realized which would be composed of both the rational and the traditional, in that one of its two premises would be certified by the intellect L 56 and the other by authoritative tradition.

It would be as when we say, “Ablution is an act [of religious import], and every act [of religious import] is [to be judged] by the ‘intention’ [i.e., that motivates it].” This is in accordance with the saying of the Prophet, “Deeds [of religious import may be judged] only by their [motivating] intentions.”¹⁰⁷ The first premise [here] is a rational statement, and the second is a traditional one.

¹⁰⁴ MS gl: I.e., its syllogistic figure.

¹⁰⁵ MS gl: I.e., the minor and major premises.

¹⁰⁶ L alone reading, “tradition” [naql], while T, the MS and MS Garrett 989Ha read, “intellect” [‘aql], which correctly fits the context.

¹⁰⁷ A well known hadith, indexed in Wensinck’s *Handbook of Early Muhammadan Tradition*, under the rubric, “Intention”: “The value [and reward] of works is in the intention.” It is quoted in several of the Hadith collections.

[Baydawi], our author, regarded the former aspect [with preference],¹⁰⁸ so he set up two divisions, 'rational' and 'traditional', while the Imam [Fakhr al-Din Razi] regarded the latter aspect [with preference],¹⁰⁹ so he set up three divisions, 'purely rational', 'purely traditional' and 'a composite of them both'.

a. Argumentation structured on rationality

In the first [of the two methods of argumentation], that is, argumentation structured upon [the basis of] rationality, the premises are either

1. 'very positive' and 'necessary' or 'acquired' [by logical reasoning], this [kind of rational argumentation] being called 'proof' or 'proof demonstration'; or they are

2. 'presumptive' or 'popularly accepted', this kind [of argumentation] being called 'rhetorical' and 'hortatory'; or they only

3. have resemblance to one of these two [types of premises], namely, to the 'very positive' or to the 'presumptive'¹¹⁰ 'popularly accepted' [types], this kind [of argumentation] being called 'fallacious'.

(1.) Thus, a 'proof demonstration' [argument] is a syllogism composed of 'very positive' [i.e., as distinct from 'affirmative'] premises that produce a 'very positive' result;

(2.) the 'hortatory' [argument is a syllogism] composed of premises that are both 'presumptive' or both 'popular in acceptance', or they are a mixture of these two, or of one of the two and a 'positive' one that produces a 'presumptive' result;¹¹¹ MS 29a while

(3.) a 'fallacious' [argument is a syllogism] composed of premises having [only] a 'resemblance' to the 'very positive', or to the 'presumptive', or to the 'popularly accepted' [premises].

¹⁰⁸ MS gl: I.e., wherein there would be an entry for the religious tradition; [cf. "Our position," above].

¹⁰⁹ MS gl: I.e., wherein both [the syllogism's] premises would be established by tradition.

¹¹⁰ The 'presumptive' and/or 'popularly accepted' are reckoned as one, being the second of the two kinds of rational argument; as conjunction between these two L and T use 'or', while the MS uses 'and'.

¹¹¹ Text varies slightly: L [min aḥadāyhimā aw min qaṭ'īyah muḥid li-ẓannīyah]; T [min iḥdāhimā wa-min qaṭ'īyah muḥid li-ẓannīyah];

MS [min aḥadāyhimā wa-min qaṭ'īyah muḥidah li-naṭījah ẓannīyah];

MS Garrett 989Ha [min aḥadāyhimā wa-min qaṭ'īyah muḥidah lil-ẓannīyah].

Baydawi said:

L 56, T 26

1. *Proof demonstration*

a) The principles of convinced certainty are those [judgmental propositions, i.e., premises] by which the intellect becomes absolutely certain simply on the basis of a conception of the [premises'] two terms [major and minor], these being called 'axiomatic first principles' and 'intuitive principles [of knowledge]'.¹¹²

b) Or, [certainty comes] through an intermediate factor that the mind conceives while forming a conception of the two terms, as, for example, that four is an even number, this factor being called 'judgments already in syllogistic form'.¹¹³

c) Or, [certainty comes] through sense perception, this factor being called 'direct observations' and 'sensate perceptions'.¹¹⁴

d) Or, [certainty comes] by way of these latter two together, the [external] sense [involved] being the sense of hearing, as when a great many people join in reporting the fact of an entirely possible event and one's intellect is thus made absolutely certain that their being in collusion to lie would be impossible, these factors being called 'evidence based on continuous reportings'.¹¹⁵

e) Or, [certainty comes] by other means, as, for example, when one observes the pattern of a certain thing being set together with another on many occasions in such a way that one's intellect judges that it is not merely a coincidence,—otherwise, it would always happen, not just most of the time,—as there being a usual sequence of diarrhea following upon the drinking of a preparation of scammony,¹¹⁶ this factor being called the 'testimony of experience'.¹¹⁷ Sometimes the observation [of a phenomenon] once or twice may be enough to join its contextual features¹¹⁸ to it, as in the judgment

¹¹² [awwalīyāt wa-badīhīyāt].

¹¹³ [qaḍāyā qiyāsātuhā ma'ahā].

¹¹⁴ [mushāhadāt wa-ḥissīyāt].

¹¹⁵ [mutawātirāt].

¹¹⁶ [al-saqmūniyā]—Identified as 'bindweed—[convolvulus scammonia]' from whose tuberous roots a cathartic resin is obtained. In appearance and function the plant seems closely related to 'jalap', associated with Central America and thence to Europe.

¹¹⁷ [tajarrubīyāt].

¹¹⁸ [qarā'in].

that the light of the moon is borrowed from the sun, [factors of this sort] being called 'intuitive surmise'.¹¹⁹

Isfahani says:

L 56, T 26, MSA 29a

1. *Proof demonstration*

After he had set forth the classes of rational argumentation, namely, 'proof demonstration', 'rhetoric' and 'fallacy', he desired to clarify their principles, these being the judgmental propositions [i.e., premises] from which argument is composed. So he proceeded with the principles of proof demonstration.

a) The principles of convinced certainty are the first principles of proof demonstration, these being the judgmental propositions [i.e., premises] by which the intellect becomes absolutely certain, either—

1) simply on the basis of a conception L 57 of both the two terms [major and minor of the premises], equally whether the conception of their two terms is by the logical 'acquisition' [of knowledge] or whether it is by 'intuition';

2) or, by a conception of one of the two terms [derived] through logical acquisition and by a conception of the other [term derived] through intuition, as when we say, "The whole is greater than any part", and, "In [the balance of whether it will have] its own existence a possible reality has need for an agency of preference",—these [principles] are called 'axiomatic first principles' and 'intuitive principles [of knowledge]'.

b) Or, [certainty comes] through judgmental propositions [or, premises] through which the intellect becomes absolutely certain, not simply on the basis of a conception of their two terms, but rather by 'an intermediate factor' that the mind conceives while forming a conception of their 'two terms', such as that 'four' is 'an even number'. Indeed, the intellect becomes absolutely certain that 'four is an even number', not simply on the basis of a conception of [this proposition's] two terms, but rather by an intermediate factor that it conceived while forming the conception of both 'evenness'

¹¹⁹ [ḥadsīyāt] Cf. the discussion of this term in A.-M. Goichon's *Lexique de la Langue Philosophique d'Ibn Sina*, no. 140 on p. 65.

and 'four', this [intermediate factor] being [the concept of] 'divisible into two equal portions'. Thus, while the intellect is forming its conception of [what is] 'evenness' and of [what is] 'four', it conceives of 'divisible into two equal portions' and a syllogism occurs to it [as follows]:

'Four' is 'divisible into two equal portions', and
everything 'divisible into two equal portions' is 'even', as is a 'pair',
thus

'four' is an 'even' number.

These [propositions with intermediate factors] are called 'judgments already in syllogistic form' because when the two terms are conceived the intermediate factor is also conceived, so the syllogism occurs as a result of conceiving the two terms and the middle term.

c) Or, [certainty comes] by way of judgmental propositions [or, premises] that give certainty in accordance with sensate [testimony to them], that is to say, judgments by which the intellect becomes certain, not simply on the basis of a conception of the [propositions'] two terms, but rather through either an external sense, as when we say, "The sun is shining brightly" and, "fire is very hot", or through an inner sense, as is our knowledge that we are happy or angry or hungry or thirsty. These judgmental propositions are called T 27 'direct observations' and 'sensate perceptions'. Indeed, the agent of judgment is the intellect, but this is by the intermediation of sense [evidence], so the sense is called an agent of judgment, since the judgment comes by reason of it.

d) Or, [certainty comes] through judgmental propositions [or, premises] by which the intellect is convinced together with sensate evidence,¹²⁰ the sense involved being the sense of hearing, as when a great many people join in reporting the fact of an entirely possible event, and one's intellect is thus made absolutely certain that their being in collusion to lie was impossible. These [factors] are called, evidence [based on] continuous reportings', as is our knowledge of individual people in past history and of far distant lands.

¹²⁰ Text varies slightly: L and T: [al-'aql wa-al-hiss huwa hiss al-sam']; MS: [al-'aql wa-al-hiss, wa-al-hiss huwa hiss al-sam']; MS Garrett 989Ha: [al-'aql wa-al-hiss ma'an, wa-al-hiss huwa hiss al-sam'], this latter being most closely similar to the Baydawī statement.

[Baydawi] considered [it important] that this report should be only of sensate evidence, because with anything other than [objective] sensate evidence a report about something from a great many people would not be useful in providing certainty. MS 29b And he considered it important that [the report] should be of an entirely possible event, because if it should be an impossible event, then no certainty would come about from a report of its occurrence. Further, if the report should come from many people indeterminate in numbers, Baydawi considered it important that one's intellect should be absolutely certain of the impossibility of their being in collusion to lie, since, if one's intellect should not be certain of the impossibility of their being in collusion to lie, then their report would not produce any certainty of an event.

e) Or, [certainty comes] through judgmental propositions [i.e., premises] by which the intellect is convinced, the sense¹²¹ involved being a sense other than hearing, such as the observation that there was a pattern arrangement of one thing in association with another L 58 many times, so that one's intellect would judge that it was not by coincidence but because some hidden syllogism was joined with it. This would be that if the arrangement mentioned should be a coincidence then it would not always be that way or even most of the time. It would be as when we judge that drinking a preparation of scammony causes diarrhea, by reason of our observation that diarrhea is its consequence time after time. These judgmental propositions are called 'the testimony of experience'.

Sometimes an observation made only once or twice will be enough for the [mental] joining together of the contextual features of an event, as is the judgment that the light of the moon is borrowed from the sun, because of the varying shapes that the light makes upon it by reason of its nearness or distance from the sun, these judgmental propositions being called 'intuitive surmises'.

The difference between 'thought' and 'intuitive surmise' is that when the [reasoning] soul is prepared for the middle term and is seeking it, then that is 'thought'; while if the middle term should occur to the [reasoning] soul without any desire or seeking for it, or, following upon a search and desire for it, without any [intellectual]

¹²¹ The MS and MS Garrett 989Ha both add a marginal phrase [wa-al-ḥiss], while L and T do not.

activity or any representation of what it might be the middle term for, then that is 'intuitive surmise'.

It has been said that the difference between 'intuitive surmise' and 'experience' is that 'experience' is based on a deed that a man will perform, as a middle term, in order to obtain for himself a desired goal; for as long as a man will not try out a medicine, either by taking it himself or by giving it to someone else time after time, he will not be able to judge that it would cause diarrhea. This case is in contrast to that of 'intuitive surmise', because the latter is not similarly based.¹²²

To every one of these foregoing principles some objections and doubts might be expressed, but since our author did not raise them as objections we too have avoided them.

Baydawi said:

L 58, T 27

2. *Rhetoric*

a) 'Presumptive [judgmental] propositions' are premises by which the intellect passes judgment, while yet allowing for the possibility that the contrary of them might have a 'more probable possibility'.¹²³

b) 'Popularly accepted propositions' are [premises that] the majority population stands by, either on account of some general advantage, or by reason of a broad amiable tolerance or an ardent zeal.¹²⁴ These propositions are such as, "Justice is good", and "Oppression is evil", and "Indecent exposure is blameworthy", while "Helping the poor is praiseworthy."

Isfahani says:

L 58, T 27, MS 29b

2. *Rhetoric*

When [Baydawi] had finished with the principles of proof demonstration, he began on the principles of rhetoric.

a) These include 'presumptive propositions' that are premises by which the intellect passes judgment, while yet allowing for the

¹²² MS gl: I.e., on a deed that a man performs.

¹²³ More probable possibility [tajwīzan marjūhan].

¹²⁴ Tolerance [riqqah]; zeal [hamīyah]; it is vowelled so in Jurjani's *Ta'rifat*.

possibility that the contrary of them might be a more probable possibility. [An example] would be as when people say, "That fellow walks around at night, so he is a thief." This is based on the supposition resulting from [the premise,] "Everyone who walks around at night is thereby a thief."

b) Then there are MS 30a 'popularly accepted opinions', judgmental propositions acknowledged by the majority populace either because of some general advantage linked to the pattern of their affairs, as for example, "Justice is good", and "Oppression is evil", or because of [the people's] broad amiable tolerance, an example being our saying, "Helping the poor is praiseworthy", or because of ardent zeal, an example being our saying, "Indecent public exposure L 59 is blameworthy."

The difference between 'popularly accepted opinions' and 'axiomatic first principles' may be known by the fact that, if a man should withdraw himself [in abstraction] from all theoretical and practical formulac [of behavior] and should suppose himself to have been created suddenly [and] without having observed any person or tested any action, and if these propositions [i.e., premises based on popularly accepted opinion] should be brought before him, then [in that case] he would not exercise judgment according to [these opinions], but rather he would be hesitant in regard to them; but if the axiomatic first principles should be brought before him, then in this situation he would not be hesitant in regard to them, but rather he would exercise judgment accordingly by them.

Baydawi said:

L 59, T 27

3. *Fallacy*

a) The premises of [an argument by] fallacy are judgmental propositions made by the power of estimation regarding some case not having sensate evidence but using an analogy based on sensate evidence, as one might say, "Everything that exists is either a body or resides in a body."

b) Sometimes the phrase, 'imaginative suggestions',¹²⁵ is used regarding these analogies, as they are propositions set forth either to make the [reasoning] soul desire something or to turn it away from

¹²⁵ Imaginative suggestions [mukhayyalât].

[wanting] it. Sometimes [these imaginative suggestions] are reliable, but most of the time they are used only in figurative analogies.¹²⁶

Isfahani says:

L 59, T 27, MS 30a

3. *Fallacy*

a) The premises of [an argument by] ‘fallacy’ are the [products of the] power of estimation. These are false judgments made concerning matters that have no sensate evidence, but [nevertheless] the estimative power makes a judgment on the analogy of sensate evidence. Since estimation¹²⁷ comes after sense perception, therefore, its judgment made concerning a matter that has no sensate evidence would be false. The case would be as when it is said that everything that exists either has a body or resides in a body.

If it were not for the fact that both the intellect and the divine laws had rejected [such false premises as] these, then they would have been counted among the judgmental propositions [based on] axiomatic first principles. The signal of their falsity is the help that the estimative power gives to the intellect in [forming] premises that [actually] produce a result opposite to that of [the estimative power’s] own judgment. For if the two of them [i.e., intellect and estimation] both arrive at the conclusion, then the estimation will back away and set aside [the result reached].

b) Sometimes, in an argument of fallacy, ‘imaginative suggestions’ are used. These are judgmental propositions set forth to make the [reasoning] soul desire something or to turn it away from [wanting] it, and when they come they have an astonishing influence upon the [reasoning] soul, whether of distressed constriction or joyful expansion.¹²⁸ Sometimes they are reliable, but ‘imaginary suggestions’ are used mostly only in their use as ‘figurative analogies’.

An example would be when one who promotes the desire for wine may say, “Wine is liquid ruby”, so that the [reasoning] soul will expand and desire T 28 it, and when one who is promoting an

¹²⁶ Figurative analogies [al-qiyyāsāt al-shi’rīyah].

¹²⁷ MS gl: Because estimation is a corporeal power of man by which he perceives the particulars [of the stimuli] drawn from sensate objects, thus, it comes after sense perception.

¹²⁸ [min qabd wa-bast].

aversion to honey may say, "Honey is bitter and has an emetic action", so that one's nature will turn away from it.¹²⁹

Baydawi said:

L 59, T 28

b. *Argumentation structured on authoritative tradition*

In the second [form of argumentation, that is, argumentation structured upon the basis of authoritative tradition, proof demonstration is premised on]

1. that which has been transmitted validly
2. from those whose truthfulness has been recognized intellectually, namely, the prophets, peace be upon them.

However, this [authoritative tradition] provides us with a conviction of certainty only

(1.) when it is transmitted to us [by a line of witnesses] in a succession without interruption, and

(2.) [when] we know that those who narrated this history in Arabic have been preserved from error, [their records] lacking homonymous ambiguity,¹³⁰ figurative language, concealed meanings, and peculiar idioms, [as well as] slanderous gossip, cancellations [of divine statements], and any intellectual inconsistency.¹³¹ L 60

[Indeed], if there should be anything [of such an inconsistency], then [that factor] would gradually gain preponderance [in the balance of judgment]. [This would be true] because the intellect is the source of authoritative tradition.¹³² Therefore, it would be an absurdity to deny the source as false in order to give a judgmental assent

¹²⁹ L and T: [al-ṭabī'ah]; MS and MS Garrett 989Ha: [al-ṭab'].
[muqayyi'ah]—An MS gloss gives the same quote but with a different verb: [al-
'asal murrah muhawwi'ah].

¹³⁰ Homonymous ambiguity [al-ishtirāk].

¹³¹ Concealed meanings [al-iḍmār]; peculiar idioms [al-takhṣīṣ]; slanderous gossip [al-nuqal]; intellectual inconsistency [al-mu'āraḍ al-'aqlī].

¹³² [al-'aql aṣl al-naql]. Baydawi defends the trustworthy tradition by referring to unbroken line of trustworthy prophets and transmitters of it. He looks back on the transmitted history, and expresses faith in the editorial work done in careful evaluation of it. This is the background source-work done by the 'intellect' in the service of 'tradition'.

F.D. Razi, in his *Muḥassal* [p. 51] in contrast, speaks only of the Prophet as being the guarantor of the more narrow current of tradition that derives from him. He does not speak of the broad history of the ancient prophets and the edition and transmission of their trustworthy messages.

to some derived corollary, because the necessary implication [of the primary action] requires denying [the secondary action] as false.

Isfahani says:

L 60, T 28, MS 30a

b. *Argumentation structured on authoritative tradition*

In the second [form of argumentation], namely, argumentation structured on authoritative tradition, proof demonstration [is premised on]

1. that which has been transmitted validly
2. from those whose truthfulness has been recognized intellectually, namely, the prophets, peace be upon them. Indeed, a rational proof demonstration indicates their truthfulness, since a) they have claimed to be truthful, and b) they have produced something miraculous in conformity with their claim, these [together] MS 30b being a rational indication of their truthfulness.

[Baydawī] said that [their ‘truthfulness’] was “recognized intellectually” only because their truthfulness cannot be known by way of authoritative tradition. Moreover, a demonstration of proof by way of authoritative tradition provides us with a conviction of certainty only

(1.) when it is transmitted to us [by a line of witnesses] in a succession without interruption. This is because if [the line of witnesses] should not be without interruption, then there would be a possibility of falsification by the bearers of tradition, so as a result there would be no conviction of certainty. Moreover, the transmission [by a line of witnesses] without interruption can be only ‘to us’, because a transmission without interruption to others than ourselves would not provide us any conviction of certainty.

(2.) Now, we know that those who narrated the history to us in Arabic

a) have been preserved from error in [the use of] its individual words, its style of presentation, its grammatical inflection, and its arrangement, because authoritative tradition provides the intended meaning only when it is presented according to the conventional significance [of the language], and this conventional significance was provided only by those who narrated the history in Arabic. Thus, if they had not been preserved from error [in these matters], then there would have been a possibility of falsification on their part, and

as a result there would have been no conviction of certainty as to the intended meaning.¹³³

And we know that [in the authoritative tradition]

b) homonymous ambiguity is lacking. Indeed, if [the tradition] had been ambiguous then possibly the meaning we have understood from the ambiguity would be something other than what was intended.

We know that [in the authoritative tradition]

c) figurative language is lacking, that concealed meanings are lacking, and that peculiar idioms are lacking, because the possible presence of any of these three [in the tradition] could prevent a decision as to the plain meaning of a textual expression, and so it would not provide any conviction of certainty.

We know that [in the authoritative tradition]

d) there is lacking any cancellation [of a divine statement], because the possible presence of [such] a cancellation could prevent any decision as to whether the [statement] in question would remain effective into the next following time duration wherein the cancelling factor appeared.

[And finally], we know that [in the authoritative tradition all]

e) intellectual inconsistency is absent, because if any such [inconsistency] should exist, then it [gradually] would become preponderant within the authoritative tradition. [This is true], because the intellect is the source of the authoritative tradition, and so knowledge of the truthfulness of the authoritative tradition depends upon the intellect. Thus, if intellectual inconsistency should not gain preponderance over the authoritative tradition, then [in that case either] the authoritative tradition would become preponderant over [the intellectual inconsistency], or else the two of them would fall together into the realm of contradiction.

Here the first alternative would make it necessary to deny as false the source, namely, the intellect, [merely] in order to give judgmental assent to a derived corollary, namely, the authoritative tradition. But to deny as false the source merely in order to give judgmental assent to a derived corollary would be absurd, because denying as false the source in order to give judgmental assent to the

¹³³ The MS reads [bi-al-maṭ] abbreviating "the desired goal" [al-maṭlūb].

derived corollary necessarily implies denying as false the derived corollary also. This is because giving judgmental assent to the derived corollary is built on giving judgmental assent to the source; thus, if the latter [i.e., the source] should be denied, then the former [i.e., the tradition] would be denied when the tradition would become preponderant over the intellect.

As [for the second alternative], if the two of them should fall together into the realm of contradiction, then no conviction of certainty L 61 would ever take place within the logical requirements of authoritative tradition.

Therefore, it is established that a conviction of certainty would be absent if any intellectual inconsistency should exist [in the authoritative tradition].

CHAPTER 4: THE DISTINGUISHING PROPERTIES OF SOUND LOGICAL REASONING

1. *Sound logical reasoning yields knowledge*

The Sumaniyah [Buddhists]¹ have denied this doctrine absolutely, while the geometricians² [deny its applicability] in theology and metaphysics.

For our part, we know as an imperative necessity that if someone should understand a) that there is a relationship of necessity between a given factor and another, and further understands b1) that truth exists in a given premise, or, b2) that truth is nonexistent in a given conclusion, then [that person] would know from the former case (b1) that truth would exist in the conclusion, and from the latter case (b2) that truth would be nonexistent in the premise.

Moreover, [we know] that if someone should understand that the universe is a possible reality, and that every possible reality has a cause, then [that person] would know with certainty that [the universe] has a cause.

Isfahani says:

L 61, T 28, MS 30b

CHAPTER 4: THE DISTINGUISHING PROPERTIES OF SOUND LOGICAL REASONING

In Chapter 4 the author has set forth three topics:

1. Sound logical reasoning yields knowledge; 2. [Sound logical reasoning] is sufficient for an experiential knowledge of God Most High;

¹ The Buddhists flourished in eastern Persia and eastern Iraq, as well as India. The term 'Sumaniyah' derives from the Sanskrit, and from there comes also the Greek word, 'Samanaioi', which was applied to the Buddhists by later Greek historians. Probably it is also related to Sumanat, a medieval coastal city on the Kathiawar peninsula of western India. Cf. the article "Sumaniyya" in En-I-2 by G. Monnot. A compendium of references to Buddhists as found in Islamic literature is given in Professor Calverley's article, "Sumaniyyah", in the *Muslim World*, v. 54 (1964), pp. 200-202. Note also the information about the Buddhists in Fazlur Rahman's article, "Barahima", and B. Carra de Vaux's article "Budd", both in the En-I-2.

² Cf. M. Souissi's article, "Ilm al-handasa", in the En-I-2-Suppl., pp. 411-414.

3. [Sound logical reasoning] is an obligation [in attaining an experiential knowledge of God].

1. *Sound logical reasoning yields knowledge*

Sound logical reasoning yields knowledge in an absolute sense.

The Sumaniyah (vowelled S-u m-a) [Buddhists], an idol-worshipping people who hold the doctrine of metempsychosis [or, 'transmigration of souls'], deny absolutely this [doctrine of the value of logical reasoning for the yield of knowledge].³ MS 31a

In addition, a group of geometricians have denied its applicability in theology and metaphysics,⁴ asserting that the intended goal⁵ in those studies is to seize upon [as knowledge] what is most preferable and most probable. But as for certainty in them [i.e., metaphysics and theology, they say], there is no way [i.e., via logical reasoning] to attain it. They do acknowledge its usefulness in arithmetic and geometry.

Our position is that sound logical reasoning, that is, that conforms to all its conditions, yields knowledge in an absolute sense, whether in forming conceptions of what has been perceived, or in judgments that assent to the conceptions being formed regarding either divine realities or realities other than the divine. In regard to [the yield of knowledge while] forming conceptions of what is perceived, what we have to say goes along with what has already been presented [in Chapter 2] on 'explanatory statements'. And in regard to [the yield of knowledge] in the judgments that assent to the conceptions being formed, [this yield is] in an absolute sense.

³ G. Monnot points out, however, that [belief in transmigration] is "a belief that is common to all Indians and [is] not one distinctive of the Sumaniyya."

He goes on to explain that the Buddhists also were associated in the minds of Muslim religious scholars with an attitude of "scepticism which 'limits certain knowledge to perceptible knowledge'." The Muslim religious scholars believed this scepticism ultimately led the Buddhists to deny "the value of speculative [i.e., logical] reasoning [naẓar] and inference [istidlāl]." Cf. Monnot's article "Sumaniyya" in En-I-2.

⁴ Taking 'theological' to include the 'metaphysical'. The Arabic term [ilāhīyāt] per se apparently cannot be taken to refer only to the one or the other. The secular geometricians are no doubt thinking of metaphysical studies. Here Baydawi's internal Book 2, "Realities Divine", deals with theological topics, while Book 1, "Realities Possible", includes ontology and cosmology that are metaphysical topics, and as possibles, they are fundamental to an understanding of the divine, but subsidiary to it.

⁵ T, the MS and MS Garrett 989Ha read [maqṣūd], while L reads [maqṣid].

Since we know as an inherent necessity that if someone should understand a) that there is a relationship of necessity between a given factor and another,—as the necessity for the sun to have risen because of the existing presence of the daylight,—and should understand further b1) that truth exists in a given premise,—this being the existing presence of the daylight in our example,—or, b2) that truth is nonexistent in a given conclusion,—this being the lack of a sunrise,—then [that person] would know from the former case (b1),—that is, that truth would exist in a given premise, namely, that the daylight is present,—that truth would be in the conclusion,—that is, that the sun has risen,—and from the latter case (b2),—that is, that truth would be nonexistent in a given conclusion, that is, the lack of a sunrise,—[that person] would know that truth would be nonexistent in the premise—that is, the lack of daylight.

Moreover, [we know] that if someone should understand that the universe is a possible reality, and that every possible reality has a cause, then [that person] would know that the universe has a cause.

Thus, it is established that sound [logical] thinking [or, reasoning] in regard to divine and metaphysical realities will yield knowledge, because the second proof demonstration [of the two preceding] L 62 deals with the divine and metaphysical, and it implies a refutation of both schools.⁶

Baydawi said:

L 62, T 28

Objections of the Buddhists

The argument of the Sumaniyah Buddhists has a number of points.⁷

a. Regarding knowledge that is obtained after T 29 logical reasoning: if it should be what is inherently necessary, then nothing contrary to it would appear, and if it should be logically rational, then what has been said would be said again of the conclusion of this second stage of reasoning, and this implies that the argument would be an infinite series.

b. Regarding the desired logical goal: if it should be something already known, then there would be nothing to seek, and if it should

⁶ MS gl: I.e., the Buddhists and the geometricians.

⁷ Baydawi here summarizes F.D. Razi's statements in his *Muhassal*, pp. 41 f.

not be something already known, then how would it be recognized if it should be obtained?

c.⁸ The mind is not able to present two premises simultaneously, for we find in our own experience that if we give our attention to one premise then in this circumstance we excuse ourselves from giving attention to another, and a single premise is not productive.

Reply to the Buddhists

The reply to these [points] is as follows:

a.-a. Knowledge in this [first case]—[i.e., the conclusion of one's own logical reasoning], and also in that [second case] [i.e., the conclusion obtained] by requiring that the two premises be together in the special syllogism,—would be inherently necessary, and so the appearance of error after sound logical reasoning would be prevented.

b.-a. The two terms are both known, but their relationship is ambiguous. The desired logical goal makes [the relationship] clear, so when [the goal] is attained, [the relationship] is distinguished from all else by its two terms.

c.-a. Indeed, the mind does present both [premises] together, just as it presents both terms of the condition together, and it judges whether the relationship between them is one of inherently necessary cooperation or of inherent incompatibility.

Isfahani says:

L 62, T 29, MS 31a

Objections of the Buddhists

The argument of the Sumaniyah Buddhists has a number of points [as follows]:

a. If the knowledge obtained after logical reasoning should be inherently necessary, then nothing contrary to it would appear; that is, no error on its part would be evident, since error is prevented for something inherently necessary. But there are many occasions when some matter at variance with this doctrine is discovered, that is, its error is made evident.

⁸ Baydawi tacitly drops Razi's point 3 [of the objectors' argument] as being an unimportant variant of his point 2. Thus Baydawi's 'point 3' is Razi's fourth point.

If it [i.e., the knowledge obtained] should be logically rational, then this discussion would be repeated [and be applied] to the conclusion of the second stage of reasoning, whereupon argument in an infinite series would be implicit.

An objection might be raised that a) on the assumption that the knowledge obtained following logical reasoning would be logically rational, and b) that the whole discussion would return [and be applied] to the conclusion of the second stage of reasoning, the necessary implication that the argument would be in an infinite series would be prevented, because it is admissible that the conclusion of the second stage of reasoning would be an inherent necessity.

The answer to this objection is that if the knowledge resulting following logical reasoning [i.e., in the first stage] should be logically rational, then the implication would be that the conclusion of the second stage of reasoning would be likewise; and if not, then it would imply a passing of judgment and a specifying [of consequences] without there being an agency to make the specifications, and in this case, argument in an infinite series would be implicit.

Someone might object that to repeat this point⁹ against the point mentioned by the author would not be proper: (a) because knowledge resulting following logical reasoning would be the result of logical reasoning, and the result of logical reasoning would itself be logically rational, so to repeat it MS 31b would be unseemly; and (b) because, if the knowledge resulting following logical reasoning should be logically rational, then it would be the conclusion of the logical reasoning that produced it, so it would not need a second stage of logical reasoning such that the discussion [regarding the first stage] would return [and be applied] to the conclusion of the second stage of logical reasoning.

You should know that the Imam [Fakhr al-Din Razi] L 63 has discussed this point¹⁰ in [his book] *al-Muhassal* in a way that nothing that has been mentioned will refute.

[Imam Razi] said, [paraphrasing the argument of the Buddhists, that their position was that] knowledge to the effect that conviction is the result obtained following logical reasoning, is knowledge that is not admissible [either] a) as being inherently necessary, because

⁹ MS gl: I.e., the first point in the argument of the Buddhists.

¹⁰ MS gl: I.e., the first point in the Buddhist argument.

oftentimes some matter becomes manifest that is its contrary, nor b) as being logically rational, otherwise, argument in an infinite series would be implicit, and that would be impossible.¹¹

Now, it may be that our author [Baydawi] meant this, but the words he uses do not show it.

b. If the sought for goal should be something already known, then there would be nothing to seek, because of the absurdity of seeking what is already known, and because there would be no benefit in seeking it; while, if it should not be something already known, and if it should be attained, then how would it be known as the sought for goal?¹²

c. The mind is unable to give attention to two premises together, since we find of ourselves that when we turn the mind to one premise, that will keep us at the moment from paying attention to another premise; thus, what is present in our mind always is no more than the knowledge of one premise, and a single premise does not produce a conclusion, by consensus.

Reply to the Buddhists

a.-a. The knowledge of the sought for goal (a) that results after sound logical reasoning is inherently necessary; and the knowledge of the sought for goal (b) that is obtained by using the two premises upon the special syllogistic structure is also inherently necessary.

Baydawi's expression is, "If it should be what is inherently necessary, then nothing contrary to it would appear"; that is, no error in it would be found.

Our [Isfahani's] position is that inherent necessity in the logical process is granted, and that rejection of the conclusion is prohibited; thus, for error to appear after sound logical reasoning would be impossible.

Someone might object that the preference of this alternative, namely, that the knowledge that results following logical reasoning

¹¹ The material paraphrased here by Isfahani is from F.D. Razi's *Muhassal* pp. 41 ff.

¹² L gl: This requires consideration, as the dispute is about the benefit or the lack of benefit [in seeking the goal]. Our lack of knowledge that something was the sought for goal does not imply there would be no benefit for the process of logical reasoning, because it is admissible that we would provide benefit for the logical process while we do not know what was the sought for goal.

would be 'inherently necessary', is not fitting in the reply [for two reasons]:

1. [It would not be fitting] because the knowledge that results after logical reasoning is provided by logical reasoning, and what is provided by logical reasoning would be logically rational.

It should not be said that Baydawi meant, by [knowledge of the goal] being 'inherently necessary', that anyone who obtained knowledge by means of the two premises upon the special syllogistic structure would obtain knowledge of the result as a matter of 'inherent necessity', not that he would obtain it without 'logical reasoning'.

Our [Isfahani's] position is that, in such a case, the reply [i.e., Baydawi's reply to the first point of the Buddhists] would not have fit the question, because 'the necessary' in the question is what is placed opposite 'the logically rational', not 'the necessary' in this [other] sense.¹³ It is on this account that he put 'logically rational' as counterpart for that in the refutation. Moreover, [Baydawi's] words, "and the appearance of error after [sound logical reasoning] would be prevented", would not have been in order, for the denial of the appearance of error after it is the conclusion to the 'necessary' sense, which is correlative to 'logically rational', not to 'necessary' in this [other] sense.¹⁴

2. [And, it would not be fitting] because then there would be no occasion for him to say, "and knowledge [obtained] by requiring the two premises to be together in the special syllogistic structure for it L 64 would be inherently necessary", in his reply [i.e., to the first point].

This is a full statement [of the reply] on the first point [of the Buddhist argument] in accordance with what Baydawi's book plainly indicates.

Now, the point the Imam [Fakhr al-Din Rāzī] has made is that it is valid to say, "Knowledge that [a person's] belief consists in the result obtained after logical reasoning is [itself] necessary knowledge." For if the knowledge should be obtained by way of the two premises, whether by necessity or by logical reasoning, and the knowledge is by way of the special syllogistic structure [i.e., the syllogism], so that

¹³ MS gl: I.e., in the sense of there being no reflective counterpart [ʿadam al-inʿikās].

¹⁴ MS gl: I.e., 'bound to happen' [wājib al-ḥuṣūl].

This gloss complements the previous one.

convinced belief deriving from this sound logical reasoning would be required, then it is obvious that this convinced belief is a knowledge without further need for logical reasoning. The end result is that the judgment, assenting to the fact that [a person's] belief consists in the result obtained after sound logical reasoning, [itself] constitutes necessary knowledge; and this is in spite of the fact that the subject of this T 30 assenting judgment, namely, the belief resulting after logical reasoning, is obtained by means of logical reasoning.

Baydawi's statement is, "If it should be inherently necessary, then . . . no error on its part would be evident."¹⁵

Our [Isfahani's] position is that the appearance of error, after sound logical reasoning, would be impossible.

In his book, *al-Muhassal*, the Imam [Razi], preferred [to take the position] that the knowledge that belief is the result that follows after logical reasoning, would be logically rational knowledge, and that argument in an infinite series would not be a necessary consequence. This is because the necessity of a given result would be from the two premises, if [the result] should be inherently necessary and the two premises should be inherently necessary, that is, convincingly certain, and [the resulting necessity] would be so either directly or by way of its nature. [Razi's] position being that necessary knowledge comprised the fact that the conclusion from a necessary or certain [premise] would be necessary or certain, it would be obviously necessary that the result [of such an argument] would be knowledge having no dependence upon anything else; thus, there would be no implication of the argument being in an infinite series.

In this restatement [of the problem] the Imam [Razi] preferred the second alternative, namely, that [the knowledge in question] would be logically rational, only because the judgment assenting to this effect was a) dependent on the belief that resulted following logical reasoning, because b) it was the subject in this judgment, and [because] c) it was logically rational, and [thus,] whatever is based upon the logically rational would be [itself] logically rational, in the Imam's opinion.

In some of his books the Imam [Razi] preferred [to call the knowledge in question] 'inherently necessary', in the sense that whoever

¹⁵ Isfahani quotes his own paraphrase, "no error on its part would be evident", instead of Baydawi's original, "nothing contrary to it would appear."

should attain these two [kinds of] knowledge [i.e., the 'necessary' and the 'logically rational'] would be forced into being absolutely certain that the result constituted knowledge.

b.-a. The two terms in the goal sought for [as the conclusion] are both known, but the relationship between them is ambiguous; that is, the relationship, whether affirmative or negative, is conceptual and the intellect has no certainty as to which of them is actually 'according to the hypothesis'.¹⁶

[Baydawi's] statement is, "If it should be something already known, then there would be nothing to seek."

Our [Isfahani's] position is that if the goal sought for should be already known, then on this point, seeking it would not be impossible. This is because in that case, with regard to forming a conception, the mind would be attentive¹⁷ L 65 and would seek to acquire one of the two, that is, either an affirmative or negative judgment according to the hypothesis.

[Baydawi's] expression is, "If it should be obtained, how would it be recognized as the goal sought for?" MS 32b

Our [Isfahani's] position is that when the judgment, whether affirmative or negative, is obtained according to the hypothesis, and this would be the sought for goal, it would be distinguished from anything else, and it would be known through the conception [held] of the two terms that the result obtained would be the knowledge that was the goal.

This is on the basis that [the Buddhists'] question, "If it should be obtained, how would it be recognized as the goal sought for?" would have no purpose at all, because the goal would be the knowledge that is the conclusion of the logical reasoning, and it would be the result obtained.¹⁸ [This would be true] even if the knowledge that it was the goal should not be obtained, because knowledge that is the conclusion of logical reasoning is not the same as knowledge that it is the goal, and negation of the latter would not imply negation

¹⁶ According to the hypothesis [wāqi'an 'ala' al-ta'yīn].

¹⁷ T reads: "attentive to it."

¹⁸ MS gl: As has been said, the conclusion need not be known from all stand-points such as to imply the securing of the result; nor need it be unknown from all aspects such as to imply a search for the absolutely unknown. Rather, it would be known from one aspect and unknown from another, and it would be sought from its unknown aspect.

of the former. The reply has been specific only to the judgment of assent, even if their proof has also included formation of a concept, because the reply applicable to the formation of a concept had already preceded.¹⁹

c.-a. The mind is able to call up the two premises together just as it calls up the two terms of the conditional [syllogism], [and then] it judges between them whether there is an inherent necessity in a conjunctive [conditional premise] or there is an inherent incompatibility in a disjunctive [conditional premise]. That proves the possibility of bringing together the knowledge of two things at one time in the mind, because the judgment that there is [present] either an inherent necessity or an inherent incompatibility will depend upon forming a conception of the two of them together, since it would be impossible to judge whether there is an inherent necessity or an inherent incompatibility between the two entities without forming a conception of them together.

An objection might be raised to the effect that a judgment of assent, it being the conclusion to [a process of] logical reasoning, would be given only to a statement composed from two propositions [as premises] each of which would comprise both a judgment and a conception of it [i.e., as to type: conjunctive necessity/disjunctive incompatibility]. It would not be sufficient to have [merely] a conception of the two terms and a conception of the [type of] judgment in arriving at a [concluding] proposition; rather, there must be in [the conclusion] a judgment [as to the type of relationship there is]. It should be known²⁰ by obvious necessity that both judgments could not possibly be arrived at in a single effort, even though it would be possible to form a conception of them simultaneously.

In truth, it should be said that the process of thinking [itself] is among the causes preparatory to attaining the sought for goal of knowledge, and likewise the two premises. But there is no implicit necessity that the preparatory causes should come all together at once; rather it is admissible that they should come about one by one.

¹⁹ MS gl: In the section on definitions [i.e., explanatory statements]: Introduction, Chapter 2.

²⁰ L and T read, "it should be known by obvious necessity" [yu'lam bi-al-ḡarūrah], i.e., a bit of irony is added to the argument. The MS and MS Garrett 989Ha read, "We know . . ." [na'lam].

Baydawi said:

L 65, T 30

Objections of the geometricians

The geometricians²¹ have presented an argument with two points.

a. An assenting judgment [to a [specific] proposition] is based upon the formation of a [specific] concept, and, the essence of God is neither intellectually comprehensible nor is it an admissible object of intellectual activity, (as we shall be discussing in Book Two); therefore, no predicating judgment may be made concerning [the essence of God].

b. The entity nearest a man is his own [soul's] identity to which he refers when he says, "I." In the studies made about the [rational] soul you will see many differences [of doctrine], as to what it is, and as to its mode of being. So what would you guess as to how far it [i.e., God's essence] might be from [human efforts in] estimating [what it is] and in comprehending it?

Reply to the geometricians

a.-a. The reply to the first point L 66 is, that an assenting judgment depends upon a conception of both terms [of a proposition] in a subjective manner of speaking, and the essence of God Most High is likewise.

b.-a. Their second point is an indication of the difficulty of this [topic of the productivity of logical reasoning in theology and metaphysics]. There is no doubt about that fact, since the power of estimation associates closely with the intellect in its use of sources, and

²¹ On the translation of [muhandisūn] as 'geometricians' see the article, "'Ilm al-handasa" in the En-I-2-Suppl. p. 411, by M. Souissi.

Tahanawi, (fl. 18th century, and probably quoting from Isfahani) said:

The first group who denied the validity of sound logical reasoning in an absolute sense were the Sumaniyah, related to Sumanat [a medieval coastal city on the Kathiawar peninsula of India]. They were a people who worshiped idols, who affirmed the doctrine of metempsychosis, and who held that there was no way to knowledge except by means of sense perception. The second group were the geometricians, who held that logical reasoning produced knowledge in the mathematical and arithmetical sciences but not in the theological [and metaphysical] sciences, and that the utmost benefit from it would be in speculation and in making a preference. [from *Kashshaf Istilahat al-Funun* = *Dictionary of Technical Terms in the Sciences of the Muslims*/Muhammad 'Ali al-Tahanawi; ed. by A. Sprenger and W. Nassau Lees. Calcutta: 1853-1862. p. 1390.]

what is false will have a resemblance to what is true in the intellect's investigations. For that reason opinions have differed and passions have clashed on this topic. The early Muslim thinkers forbade all but a few intelligent scholars from taking it up; rather, the discussion was about its impossibility.

Isfahani says:

L 66, T 30, MS 32b

Objections of the geometricians

The geometricians, who deny that the process of logical thought can provide any knowledge in theology and metaphysics, have presented an argument with two points.

a. If the thought process should provide knowledge in theology and metaphysics then the result following the thought process would be knowledge of a given entity's relationship to the essence of God Most High.

But the conclusion is false, so the premise is likewise. The inherent necessity of the logic here is obvious. The falsity of the conclusion is in the fact that knowledge of a given entity's relationship to the essence of God Most High would be an assenting judgment. Now, an assenting judgment is dependent upon 1) a conception being formed of both 2a) a subject [of which some descriptive information is then predicated] and 2b) the predicate [i.e., the informing description],²² since it would be impossible to have knowledge of one entity's relationship to another without some conception of each of them. Thus, if MS 33a knowledge of the relationship of a given entity to the essence of God Most High should be attained, then the essence of God would be something conceivable. But the essence of God is not conceivable, indeed, it is neither T 31 intellectually comprehensible nor is it admissible as the object of intellectual activity (as we shall be discussing in Book Two on Realities Divine). And therefore, the essence of God Most High may not be a subject of which something is predicated.²³

b. The second [point of their argument] is that the entity most apparent to a man and the nearest to him is his own [soul's] iden-

²² [al-taṣdīq mawqūf 'ala' taṣawwur al-maḥkūm 'alayhi wa-bihi].

²³ Reading with L, the MS and MS Garrett 989Ha: [maḥkūman 'alayhi]. T differs: [maḥkūman 'alayhi wa-bihi]: Baydawi's position is opposed; see p. 20 above.

tity, to which every single person refers when he says, "I", and that logical reasoning does not provide knowledge of [this self-identity], since, if it should have been productive of knowledge concerning it, then intelligent people would not have differed over it.

But the conclusion is false, and [the invalidity of] the inherent necessity [in their argument] is obvious. The conclusion is false because, as you see, in the studies made of the soul there are many differences concerning what the soul is and the mode of its being.^{24,25}

1. Some [scholars] hold that the soul is identical to this sensate bodily frame. Many of the Mu'tazilah and a group of the Asha'irah took this position.

2. Some hold that the soul consists of subtle bodies made of light that flow about in this sensate bodily frame as does rose water in roses and as fire does in coals. That which flows about is what is addressed, rewarded and punished; it is what preserves the sensate bodily frame from being penetrated by corruption, and when it takes its leave [the body] collapses and decomposes. The Imam al-Haramayn [al-Juwaynī] was inclined to favor this doctrine, along with a great cluster of early scholars.

3. Some hold that the soul is an indivisible atom in the heart, and this doctrine is attributed L 67 to al-Nazzam²⁶ and Ibn al-Rawandi.²⁷

4. Some hold that the soul is a blend; thus, as long as the body maintains that blend that belongs to it in accordance with its species it is protected from corruption, but if it moves out of that degree of balance, then the blend is nullified and the body collapses and decomposes. This is the doctrine of the ancient physicians.

²⁴ MS glosses: 1. I.e., [Is it] a body or corporeal entity, or [is it] a transcendent incorporeal entity. 2. I.e., [Is it] eternal, temporally originated, or ephemeral?

²⁵ The Geometricians' argument concludes with the last paragraph here. Isfahani appears to have interpolated the following five brief paragraphs on the various notions about the soul. The main study on the body and on the soul comes later in Book 1, Section 3, Chapters 1 and 2.

²⁶ Ibrāhīm ibn Sayyār al-Nazzām, d. between 220/835 and 230/845, early Mu'tazilah theologian. The attribution to Nazzam here is mistaken as he did not believe in atomism.

Cf. the article on him by Josef van Ess in *En-I-2*, v. 7, p. 1057.

²⁷ Ahmad ibn Yahya Ibn al-Rāwandī, died probably about middle of 4th/10th century. He was a Mu'tazilah theologian, as well as being a free thinker at least for a time. Cf. the article on him by Paul Kraus and G. Vajda in *En-I-2*, v. 3, pp. 905 f.

5. Some hold that 'soul' is an expression for the 'rational soul'. This is a transcendent incorporeal substance MS 33b that neither occupies space nor inheres in what occupies space. [It is] the manager of this sensate bodily frame and its maintainer, it has understanding and is addressed, rewarded and punished. The Muslim investigative scholars among the philosophers arrived at this doctrine, and it is the choice of the Imam al-Ghazali and most of the Sufi masters of mystical revelations.

Now, if that is mankind's situation regarding what is most apparent to him and nearest to him, then what would you guess [the case would be] regarding what is most remote from [his powers of] estimation and intellectual understanding, namely, the essence of God Most High, so far removed in holiness from any circumscription of Him by the [human] intellect or any perception of Him by [the human power of] estimation?

Reply to the geometricians

a.-a. In reply to the first point [of their argument it should be said] that any judgment of assent [to a proposition] would be dependent upon a conception being formed of the two terms [of the proposition] in some manner subjectively; [it would] not [depend] upon a conception of the two terms in their real natures. The essence of God Most High is likewise, that is, it is conceived in some manner subjectively.²⁸ Thus, it would be admissible that an assenting judgment, regarding the relationship of some entity to Him, should be realized [as a formulation], and therefore, it would be valid for logical reasoning [applied] in theology and metaphysics to be productive of knowledge.

b.-a. Replying to their second point, the difference among thinking people in their studies about the soul does not necessarily mean that logical reasoning would be unproductive of knowledge [in this field]. This is because it is admissible that the difference among them would be due to the fact that their procedure lacked sound logical reasoning, and that fact [would be] due to their confusion with some of the conditions to be considered in sound logical reasoning.

²⁸ MS gl: I.e., by properties specifically His prerogative [bi-khawāṣṣihi], namely, His being Creator of the heavens and the earth.

What you [geometricians] have set forth [in argument] does not prove that [attaining] knowledge from logical reasoning would be impossible in theology and metaphysics. Rather, it indicates the difficulty of attaining knowledge by logical reasoning in theology and metaphysics.

And there is no doubt about its difficulty, since the power of estimation associates closely with²⁹ the intellect in its use of sources. Indeed, the sources used by the intellect in theological and metaphysical problems are from the natural sciences that are perceived by the power of estimation. Thus, the power of estimation associates closely, that is, it mingles in, with the intellect in its use of sources, namely, the natural sciences, and so what is false will have some resemblance to what is true in its [i.e., the intellect's] investigations.³⁰ Thus, the predicating decision made by the power of estimation regarding things that are not objects of the senses would be false, while it resembles the truth. Indeed, it passes the same judgment [of predication] about non-sensate objects that it passes about sensate objects, as being [a judgment] analogous to it.

Because the estimative power associates closely with the intellect in the use of its sources, and [because] what is false has some resemblance to what is true in the intellect's investigations, opinions have differed in the field of theological and metaphysical research and passions have clashed. The early Muslim thinkers forbade any research discussion [using logical reasoning] MS 34a in the field of the theology and metaphysics except to a few L 69 intelligent scholars who had a clear conviction of their religion and would not deviate from it by any ambiguous statement.

Baydawi said:

L 68, T 31

Corollaries to the yield of knowledge

a. Sound logical reasoning prepares the mind, and the result comes in upon the mind just afterwards, as an ordinary event according to Shaykh Abu al-Hasan al-Ash'ari, but as a necessary event according to the philosophers.³¹

²⁹ MS gl: I.e., it mingles in with [yukhālīt] [the intellect].

³⁰ 3 glosses: 1) I.e., the predicating judgments that are made [maḥmūlāt]. 2) I.e., in its goals. 3) I.e., in the intellect's studies of theological knowledge.

³¹ F.D. Razi discusses this point on pp. 47:14 f. of his *Muhassal*.

The Mu'tazilah take the position that logical reasoning generates this result in the mind, the meaning of 'generation' being that the existence of a given thing would render necessary the existence of another thing, as in the case of the movement of the hand and [the movement] of a key.³² But the weakness of this position is made clear when it is shown that all the realities possible are ultimately based on God Most High for their origin.³³

b. The nearest [way] to a real truth is that following the presentation of the two premises strict attention must be paid to the syllogistic arrangement and structure that will characterize them, otherwise, the syllogistic figures would not differ from each other in how they clarify or obscure the issue.

c. The commonly held view is that invalid logical reasoning does not necessarily produce foolish ignorance, while some others hold the opposite.³⁴ In truth, if the invalid reasoning should be confined to a [specific] matter, then it would necessarily [produce falsehood], but not otherwise.

Isfahani says:

L 68, T 31, MS 34a

Corollaries to the yield of knowledge

When Baydawi was explaining that sound logical reasoning produces knowledge, he set up [in his outline] three corollaries to this fact.

a. Sound logical reasoning prepares the mind³⁵ to receive the result [of the reasoning] from its principal source.³⁶ The result [attained] comes in upon it [i.e., the mind] following sound logical reasoning in the manner of a customary, ordinary event,³⁷ according to Shaykh

³² The Mu'tazilah, as an early and continuing important school of thought within the Islamic community, are the most thoroughgoing rationalists in their discourse and in their doctrines. They are considered "unorthodox" and are contrasted primarily with the Sunni or, "orthodox", Asha'irah.

³³ Baydawi is paraphrasing material in Razi's *Muhassal*, p. 48.

³⁴ Razi mentions this view in his *Muhassal*, p. 49:1. Ibn Sina also made parallel statements, as in his *Isharat*, Pt. 1, Logic (English translation by S. Inati) p. 99: 31-33: "It is not a condition of the proposition with which the logician is concerned that it be true. Sometimes he is also concerned with that which is nothing but false." Cf. also on p. 130, note 9, pp. 131:4 f.

³⁵ MS gl: The mind is a power of the soul that is made ready to acquire opinions.

³⁶ MS gl: What is meant by 'its principal source' is God.

³⁷ 'Custom', [or, some ordinary event] is a voluntary action that tends to continue taking place, although its opposite is not impossible. God can create it as something logical and without a change, as well as the converse of this.

Abu al-Hasan al-Ash'ari, that is, sound logical reasoning is followed by knowledge because the normal sequence of things makes that an ordinary event, just as the feeling of appetite satisfaction occurs after eating without it being an obligatory [sequence]; while [it happens] in the manner of something obligatory according to the philosophers. That is, sound logical reasoning prepares the mind, and the result [of the reasoning] comes in upon it following this action in the manner of something obligatory. This is the doctrine preferred by the Imam al-Haramayn [al-Juwayni], and it is the most valid doctrine according to the Imam [Razi].

The Mu'tazilah hold that sound logical reasoning generates a resulting inference in the mind, T 32 'generation' meaning that the existence of a given thing renders necessary the existence of another thing. They held that an act that issues from an agent without anything intermediary is 'direct action', while that with something intermediary is 'generation', as in the movement of a hand and a key. The movement of the key is by the intermediation of the movement of the hand, so it is by 'generation'; and a resulting inference is generated by one who reasons logically by the intermediation of [formal syllogistic] logical reasoning.

The Asha'irah have argued that knowledge temporally originated in a [syllogistic] resulting inference would be a possible entity—God being omnipotent over all possible realities and the divine agent for all of them—and one that would begin with free choice; and thus, knowledge that would issue from Him³⁸ by way of a [syllogistic] resulting inference would not be a religious obligation, but rather, an event of ordinary custom.

An objection could be raised that the coming of knowledge by free choice would not exclude [the element of] obligation absolutely, L 69 but rather, it would exclude any obligation that would be apart from free choice; and it is admissible that an effect issuing from the agent by [His] free choice should come as an obligation by [His] free choice.

Since the Mu'tazilah believed that the actions of living beings should be ascribed to [the beings] themselves, and since they ascribed knowledge to a person reasoning logically by the intermediation of

³⁸ The MS codes the antecedent of the pronominal suffix as God. However, the context, as well as the following sentence, amplifies the concept to show that knowledge begins and is generated by the free choice of God.

[formal syllogistic] logic, they judged that it was by 'generation'. But the proof of the falsity of the 'generation' doctrine is that knowledge by way of a [syllogistic] resulting inference is in itself a possible entity, and thus, it would be an object of the power of God Most High and there would be no possibility of its happening by anything other than His power.

The proof that knowledge, attained MS 34b from a resulting inference following upon sound logical reasoning, would be something necessary is that, as long as the knowledge is attained by means of the two premises that include the conditions for [its] production, knowledge by way of the resulting inference would be inherently necessary, equally whether it is postulated as being something ordinary or not.

Indeed, if someone should understand that the universe is changeable and that whatever is changeable is a possible reality, [then that person], with the presence of these two facts together in mind, would find it impossible not to know that the universe is a possible reality, and one's knowledge of this impossibility would be inherently necessary [knowledge].

b. Shaykh Abu 'Ali Ibn Sina asserted³⁹ that the presence of the two premises in the mind, meaning the minor and major premises, would not be sufficient to know how the major term should be related to the minor term. But rather, after the two premises are present there would have to be another factor, namely, an [overall] comprehension of how to rank the particular premise under the universal premise, that is, knowledge that the minor term is ranked below the major term. If this [additional] knowledge should be excluded, meaning a knowledge of the relative ranking, then knowledge of the resulting inference [from the logical process] would not be attained.

It would be as when a certain animal is known to be a she-mule and it is also known that every she-mule is sterile, then while knowing this universal premise one should see a she-mule with a distended abdomen and should assume that it was pregnant, because one had no [overall] comprehension that [the case of] this mule should be ranked subordinately to our proposition that every she-

³⁹ F.D. Razi, in his *Muhassal*, pp. 49:9 ff. relates this material of Ibn Sina. The reasoning is different from that which deals with false premises in a valid or invalid syllogism.

mule is sterile, and this⁴⁰ [assertion of his] is true. The Imam [Razi] held that this [reasoning] would be weak,⁴¹ since the subordination of one of the two premises under the other could have [one of the two following meanings]:

1. The subordination would constitute some known factor other than these two premises, and in this case there would have to be another premise for the production of a result; and so the discussion of how it would be articulated with the first two premises would be the same as the discussion of how to articulate the first two, and that would lead to an endless consideration of [additional] premises.

2. Or, the subordination would not constitute some known factor different from the two premises, and in this case it would be impossible for it to be a condition for the production of a result, because the condition is distinct from what is conditioned, and here there would be no distinction at all, so there would be no condition at all.

As for the story of the she-mule, that case would be possible only if what is present in the mind would be only one of the two premises, L 70 either the minor premise or the major premise; however, if the two [premises] should both meet in the mind, then we would not grant the possibility of there being any doubt as to the result.

An objection might be raised that the first alternative [of Imam Razi] would be preferable, this being that the subordination of one MS 35a of the two premises under the other would constitute a known factor distinct from the two premises.

Razi's statement here is that if that should be the case then it would constitute another premise.

Our position is that if you⁴² mean by its being another premise that the production of a result would depend upon it,⁴³ then that would be granted, but the implication of that fact is not that it [i.e., the new premise] would have need to be articulated with the two

⁴⁰ MS gl: I.e., the Shaykh [Ibn Sina's] assertion that another truth should be applied to the present fact.

⁴¹ I.e., having comprehension is not a condition by which sound logical reasoning provides knowledge.

⁴² Presumably a colleague disputant who reminds the speaker of Imam Razi's contribution.

⁴³ MS gl: I.e., [if] a knowledge of the subordination [between premises] would mean the conception of it, and the production [of a result] would depend on this [conception], then that is granted.

original premises, but rather that there must be proof [of such a need].

But if you mean by your statement that it is another premise that it would be a premise related to one of the two [original] premises as a minor premise would be related to a major premise, or the reverse, so that it would have need for an articulation to be made between the two of them and for the subordination of one of them to the other, then that would not be allowable.

Now, in the story of the she-mule, the Shaykh [Abu 'Ali Ibn Sina] could say that if there should be no knowledge that [the case of] this she-mule would come under our proposition that every she-mule is sterile, then there would be no knowledge that this she-mule would be sterile. And you should know that what the Shaykh had stated would be understood as true by inherent necessity. Indeed, the fact that the minor premise is subordinated to the major premise is something one must certainly know in order to gain knowledge by way of a resulting inference.

Whether there is any possibility that knowledge by means of the two premises can be obtained without knowing this [other basic fact] [i.e., that subordination of the minor to the major is required] is a matter of current debate.

The Shaykh [Ibn Sina] did not tell the story of the she-mule as being a proof for the goal of his logic, but he brought it in only by way of an example, so any objection that would prohibit [his logic] would [really] be an objection to the example.

Our author Baydawi's statement, "The nearest [way to a real truth] is that following the presentation of the two premises strict attention must be paid to the syllogistic arrangement and structure that will characterize them, otherwise",—that is, after the presentation of the two premises, if the production of a resulting inference should not depend on paying strict attention to the syllogistic arrangement and structure that will characterize them,—"the four syllogistic figures would not differ from each other in how they clarify or obscure the issue", is a reference to the fact that what the Shaykh [Ibn Sina] had set forth [for emphasis] was correct.

c. The commonly held view is that invalid logical reasoning,—that is, [reasoning] in which one of its two parts, the material content,⁴⁴

⁴⁴ Reading with the MS and MS Garrett-Yahuda 4486, [al-māddah aw al-ṣūrah]. L, T, and MS Garrett 989Ha read, [al-māddah wa-al-ṣūrah].

or the form [of it], or both of these, is false, that is, does not include the conditions that should be regarded in the production of a resulting inference in respect of the content or the form or both of these,—will not necessarily produce [as conclusion] the foolish ignorance that is the opposite of knowledge and that decisively marks the resulting inference as false in fact. There are others who hold the contrary of this, namely, that invalid logical reasoning MS 35b will necessarily produce foolish ignorance that is the opposite T 33 of knowledge.

The Imam [Razi] has said, and I [Isfahani] hold it to be true, that if someone should believe⁴⁵ that the universe is eternal and that everything eternal is independent of the Effective Cause [i.e., God], L 71 these two pieces of foolish ignorance being together [in the mind], then it would be impossible not to believe that the universe is independent of the Effective Cause, this [resulting inference] being a piece of foolish ignorance. And whoever holds that invalid logical reasoning does not necessarily result in foolish ignorance will argue [also] that if invalid logic were to produce foolish ignorance necessarily, then logic that was valid but in the form of the corrupt would produce foolish ignorance.

But the Imam [Razi] replied that the counterobjection to that [reasoning] would be that if the logic in a proof demonstration should provide knowledge, then corrupt logic in a valid proof demonstration would provide knowledge. So, if in that situation⁴⁶ belief in the truth of those premises should be set up as a condition for the provision [of knowledge], then our reply to what they had said⁴⁷ would be to say that if valid logic should be in the form of what is corrupt, then only in that situation it would not produce foolish ignorance, because it had forfeited the condition of its producing foolish ignorance, one condition of its producing foolish ignorance being belief in the truth of those premises.

Our author, [Baydawi], stated that the truth of the matter is:

1. if the corruption [in logic] should be confined to the subject matter [of the premises], then the corrupt logic would necessarily produce foolish ignorance. This is because when falsehood is

⁴⁵ Isfahani here follows closely Razi's material in *Muhassal*, pp. 49:2 ff.

⁴⁶ MS gl: I.e., in [a situation of] corrupt logic.

⁴⁷ At this point Isfahani gives a full explanation of Razi's brief words.

confined to the subject matter then the syllogism necessarily produces it in the resulting inference, as you have learned that a syllogism the premises of which consist of falsehood will necessarily produce [falsehood] as the resulting inference, and that fact is like the example set forth by the Imam Razi.⁴⁸ And,

2. if the corruption should be confined to the [syllogistic] form, or, includes both the syllogistic form and the subject matter, then the resulting inference will not require the exclusion of whatever validity [the resulting inference] has, since the agency making the requirement is the syllogistic format.

Baydawi said:

L 71, T 33

2. Sound logical reasoning is sufficient for knowledge of God

Sound logical reasoning is sufficient for knowledge of God, and there is no need here for a teacher, [the principles] we have set forth being a proof demonstration of its truth.

The Ismaʿiliyah present an [opposing] argument with the following points.

a. Contradiction and disputation persist among thinking people in this matter, and so if the intellect were sufficient then that would not be the case.

b. Moreover, man does not find it a trifling matter to achieve mastery of the least demanding of the sciences, and so how [will it be] with the most difficult?

a.-a. The reply to the first point is that if [thinking people] had used sound logic then that situation would not have befallen them.

b.-a. The difficulty [of mastering the sciences] is granted; and there is no doubt that if there had been a teacher to instruct [mankind] in the first principles [of knowledge] and in the building of rational arguments, as well as in removing doubts and specious argument, then it would have been more agreeable. However, the disputation is only about the impossibility [of the enterprise].

⁴⁸ MS gl: Of the category [min anna], 'That the universe is eternal'.

Isfahani says:

L 71, T 33, MS 35b

2. *Sound logical reasoning is sufficient for knowledge of God*

There is no need here for a teacher, a proof demonstration of this fact being the principles we have set forth, namely, that if a rational man should understand that the universe is a possible reality and that everything possible has a cause, then he will know that the universe has a cause, equally whether a teacher is present or not.

This is contrary to the Isma'iliyah, who hold that it is a [divinely imposed] obligation L 72 [upon believers] to appoint a supreme leader. They consider that it would be impossible for any [single] period of time to pass without there being a blameless supreme leader,⁴⁹ MS 36a one who would lead [all human] creation to an experiential knowledge of God Most High, who would teach them the way of deliverance,⁵⁰ and who would direct them to good things and warn them against evil things.

They teach that there is no possibility of experiential knowledge of God Most High unless it is by the word of an infallible teacher, and for that reason they are called the 'Ta'limiyah'.⁵¹ Then they are divided into two sects. One sect holds that the intellect provides no guidance at all to the knowledge of God, but is wholly withdrawn from theological subjects.

The other sect holds that the intellect is not wholly withdrawn from studying theological matters but it has no independent knowledge; rather, it must have a supreme leader to direct it to the [various] points of proof, to advise it in rejecting specious argument,⁵² and to remove doubts. The relationship of the leader's intellect to the intellects of the people is [like] the relationship of the sun to [human] sight. Just as human sight is unable to perceive objects of vision in the dark, but when the sun has risen human sight is strengthened

⁴⁹ MS gl: [I.e., blameless] of error, as was the Prophet.

⁵⁰ I.e., from the Fire. Cf. Qur'an 40:41.

⁵¹ Cf. the article, "Hasan-i Sabbah", by M.G.S. Hodgson in the *En-I-2*, v. 3, at p. 254a: "He [Hasan-i Sabbah, early Isma'ili leader] expounded in Persian an intensely logical form of the Shi'i doctrine of [ta'lim], that one must accept absolute authority in religious faith; this form of the doctrine became central to the Nizari teaching of the time and greatly affected al-Ghazali."

⁵² Reading with the MS and MS Garrett 989Ha. L: [shubsubah], apparently a scribal error; T: [shubah] with the plural.

by the light of the sun and is made capable of perceiving objects of vision, likewise human intellects fall short of apprehending divine realities, but when the supreme leader is present human intellects are strengthened by the leader's intellect and are thus made capable of apprehending such realities.

The Isma'iliyah have presented an argument having two main points to the effect that sound logical reasoning is not sufficient for experiential knowledge of God Most High, but rather that there must be a teacher.

a. Contradiction and disputation, that is, debate, is continuous among thinking people on theological subjects; and if the intellect were sufficient in that regard then that would not be the case, that is, there would not be continuous contradiction and disputation among thinking people in that regard.

But the conclusion is certainly false, so the premise is likewise; therefore, there must be another authority [in the matter], other than the intellect, and this would be the supreme and infallible leader.

b. Man by himself does not find it a trifling matter to achieve mastery in the least demanding of the sciences, such as weaving, sewing, grammar and astrology, but rather there must be a teacher to guide him. Now, if that is their situation in the least demanding of the sciences, then what do you suppose it would be in the most difficult of them, namely, experiential knowledge of God Most High, His attributes and His judgments?

a.-a. The reply to the first point is that thinking people MS 36b did not use sound logic, for if they had used sound logic then continuous contradiction and disputation would not have befallen them.

b.-a. The reply to the second point is that there is no disagreement as to the difficulty, because the difficulty is granted. And there is no doubt that if there had been a teacher who would instruct [mankind] in the first principles [of knowledge] from which rational arguments are composed, who would instruct [mankind] in the [skill of making] the rational arguments and who would remove doubts and specious arguments, then it would have been more agreeable and simple. L 73 The disagreement is only about the impossibility [of the enterprise],⁵³ but what you opponents have set forth [as argument] does not prove its impossibility.

⁵³ MS gl: I.e., the impossibility of achieving an experiential knowledge of God without a teacher.

Baydawi said:

L 73, T 33

3. *Sound logical reasoning is obligatory for knowledge of God*

[God] has made sound logical reasoning an obligation in [seeking] an experiential knowledge of [Himself the] Most High.

It is an obligation, and our position is in accordance with the statement of [God] Most High,

“Tell [the people], ‘Observe everything in the heavens and the earth’” [Q 10:101] and similar verses.

With the Mu‘tazilah [it is an obligation] because [to have] experiential knowledge [of God] is a duty on rational grounds: but [such knowledge] is not attainable except by [sound] logical reasoning, and anything whatever—without which an obligation would not be fulfilled in an absolute sense—itself becomes an obligation.

An objection may be raised against this [argument of theirs] as follows:

a. it is founded T 74

1. upon a judgment of intellectual reason,—and a discussion of that point will be forthcoming;⁵⁴ and

2. [upon] the impossibility of a personal knowledge [of God] by any other method than [reason], and

3. [upon] the impossibility of imposing as a religious obligation what is an impossibility in itself,—and both of these [latter two] would be forbidden; and

b. the statement of Him the Most High,

“We have never brought on punishment until after we have sent a messenger”, [Q 17:15] both

1. excludes any obligation that is prior to the mission [of the prophets] in order to exclude its necessity, and

2. proves that the obligation is derived only from the religious law.

An objection [from the Mu‘tazilah side] is raised saying that if the obligation should be from the religious law then it would imply that the prophets should be silenced. Indeed, a person who is under religious obligation [i.e., in a religious community] will not undertake

⁵⁴ That is, it is a case of ‘begging the question’, i.e., the premises are very similar to the conclusion.

to reason logically as long as he does not know of the obligation to do so, and he will not understand the obligation of it as long as he will not reason logically [about it].

Our position is that if [logical reasoning] had been made to be an obligation through intellectual reason, then [the prophets] would also have been silenced [as needless]. This is because the obligation to use [sound] logical reasoning is not one of inherent necessity, since it rests upon premises [all of] which themselves require precise logical steps [to formulate].

Isfahani says:

L 73, T 74, MS 36b

3. Sound logical reasoning is obligatory for knowledge of God

You should understand that people have differed concerning the obligation to have experiential knowledge of God Most High.

The Hashwiyah school,⁵⁵ who teach that religion is to be taken from the Book and the Tradition [of the Prophet], took the position that an experiential knowledge of God is not something obligatory, but rather what is obligatory is a right belief that corresponds to real fact.

The majority of the Muslims took the position that experiential knowledge of God Most High is obligatory. Then these people divided into two groups, one group teaching that the [right] way to the knowledge of God was only through spiritual exercise and inner purification, this being the doctrine of those who are Sufis and members of a Path [ṭarīqah]. The [other] group held that the [right] way to the knowledge of God is only by logical reasoning, this being the teaching of the Asha'irah and the Mu'tazilah.

Thus the Asha'irah and the Mu'tazilah have agreed both on the fact that the experiential knowledge of God is obligatory, and [on the fact] that logical reasoning is the [right] way to this [knowledge] and is also obligatory. Then they differed, the Asha'irah having taken the position that the obligation of logical reasoning is derived from the religious law, and the Mu'tazilah taking the position that it is derived from reason. Now let us return to the text.

⁵⁵ L. gl: [People] called them the Hashwiyah because they held that reason is only to be discarded from one's obligation of experiential knowledge of God as so much excessive [verbal] stuffing [hashwan].

Our position is that logical reasoning in the experiential knowledge of God Most High is a religious obligation by consensus among both our Asha'irah colleagues and the Mu'tazilah. With our [Asha'irah] colleagues [this obligation] is derived from the religious law, in accordance with the statement of Him the Most High,

"Tell [the people], 'Observe everything in the heavens and the earth'" [Q 10:101] and similar statements, such as His word,

"Is it perhaps that they have not observed everything in the divine government of the heavens and the earth?" [Q 7:185]

With the Mu'tazila [the obligation to use logical reasoning in the experiential knowledge of God] is derived from intellectual reason, because the knowledge of God is itself an obligation [based] on rational grounds.

Now, this is due to the fact that thankfulness to God is something L 74 rationally obligatory, since His favors to mankind as His creatures are manifold,—God has said,

"And He has generously bestowed upon you His favors both of an outward material nature and of an inward spiritual nature", [Q 31:20]—and an act of giving thanks to Him as the source of all favors would be a rationally obligatory act, since driving away fear from the soul is rationally obligatory and by giving thanks fear is driven away MS 37a from one's soul. Thus, giving thanks to God Most High would be rationally obligatory, and giving thanks to God is based upon an experiential knowledge of God. Therefore, an experiential knowledge of God Most High is an obligation [based] on rational grounds.

But it is unattainable except through [sound] logical reasoning.⁵⁶ Now, if there should be any factor whatsoever, without which an absolute obligation,⁵⁷—that is, what is obligatory in every circumstance,

⁵⁶ MS gl: I.e., the knowledge of God is not fulfilled except by [sound] logical reasoning. This is because it is necessarily not intuitive knowledge, and it cannot be attained by way of what has been traditionally heard [as authority], otherwise, a circular argument would be implicit; therefore, logical reasoning is indicated [as the necessary method].

⁵⁷ MS glosses: 1. This being the knowledge of God.

2. An 'absolute obligation' is anything the obligation of which does not rest upon the existence of some antecedent premise.

3. This definition is not wholly inclusive as there can be no judgmental assent [taşdiq] to its being applied to the prayer-rite, because the obligation to this [rite] is dependent upon the existence of an antecedent premise, as faith, for instance.

and [even] as a decree,⁵⁸—cannot be fulfilled, then that factor⁵⁹ would be an obligation on rational grounds.

By using the term, 'absolute', he [Baydawi] avoided anything that would be subject to restriction such as the alms tax, as that is an obligation subject to the restriction of whether [or not a person's] income is above the minimum taxable level, and it ceases to be an obligation when there is no income [above this] minimum taxable level.

And by using the phrase, 'and [even] as a decree', he avoided an absolute obligation that could not be fulfilled except by some factor that [in itself] would not have been decreed by the One who prescribes a religious obligation. And if that factor, without which an obligation cannot be fulfilled, should not have been decreed by the One who prescribes religious obligation, then the duty of performing an obligatory act would not be [this factor's] requirement.⁶⁰ If it were otherwise, there would be an implicit imposition of something intolerable as a religious obligation.

An objection has been raised against this proof [of the Mu'tazilah], in that it is based

a. upon a judgment made by intellectual reason to the effect that the experiential knowledge of God is an obligation [justifiable by] intellectual reason.

[Isfahani replies] that there will be a discussion of the fact that the judgment of the reason is corrupt, but rather that the agency of judgment is the religious law.⁶¹

b. [Further, their argument is based] upon the impossibility of personal knowledge [of God] without logical reasoning;

[Isfahani replies] that if personal knowledge [of God]⁶² should be possible without logical reasoning then logical reasoning would not be rationally obligatory; but the fact is, for the personal knowledge of God to be an impossibility without [sound] logical reasoning is itself not an allowable [proposition]. Moreover, what would be the

⁵⁸ MS gl: [I.e.], of the One who prescribes a religious obligation.

⁵⁹ MS gl: [I.e.], logical reasoning.

⁶⁰ The 'factor' as antecedent of this relative pronoun is so coded in the MS.

⁶¹ MS gl: I.e., rather, the religious law is the agency for judgment upon the obligation of a knowledge of God, and moreover, the religious law is the agency for judgment upon the impossibility of personal knowledge [of God] without [sound] logical reasoning.

⁶² MS gl: [I.e.], inquiry [istifhām].

proof of its impossibility? And why would it not be admissible to secure the knowledge of God Most High through an infallible teacher guide, as is the opinion of the Isma'iliyah, or through general inspiration, as is the opinion of the [Buddhist] philosophers of India, or through inner purification, as is the opinion of the Sufis, this, [however], being a right method.⁶³

c. Moreover, [their argument] is based upon the impossibility of an imposed obligation to do what is in itself impossible;

[Isfahani replies] that the impossibility of an imposed obligation to do what is in itself impossible is not allowable [as a proposition].

A further objection is raised against the argument of the Mu'tazilah that, if logical reasoning were rationally obligatory then it would have been obligatory before the mission [of the prophets], because in that case the obligation to use logical reasoning would not be based upon the mission [of the prophets] but rather upon intellectual reason. The fact that there was intellectual reason before the mission [of the prophets] is well established, and the fact that there was obligation before the mission [of the prophets] is implied by the imposition of punishment for not doing what was obligatory.

But the word of Him the Most High,

"We have never brought on punishment until after We have sent a messenger", [Q 17:15] excludes any obligation prior to the mission [of the prophets] by excluding the logically necessary consequence of the obligation, namely, punishment.

Now, the exclusion of obligation prior to the mission of the prophets would be implicit in the exclusion of obligation [based] on rational grounds, and the exclusion of obligation [based] on rational grounds would make it requisite that obligation should be derived from the religious law.

Therefore, the word of Him the Most High, MS 37b

"We have never brought on punishment..." [Q 17:15]⁶⁴ gives the proof that there is no obligation except what is derived from the religious law.

An objection is raised⁶⁵ that if logical reasoning should have been made obligatory by the religious law then it would imply that the prophets had been silenced, but such a conclusion is obviously false.

⁶³ The MS and MS Garrett 989Ha omit this final comment.

⁶⁴ The MS scribe adds the rest of the verse, "until after We have sent a messenger."

⁶⁵ MS gl: [I.e.], the objection comes from the Mu'tazilah.

To explain the inherent necessity of [the Mu'tazilah] logic here, it is that L 75 a person on whom a [religious] obligation has been imposed will not consider logically something he does not know he is obliged to consider. Now, he will not know of the obligation laid upon him to consider it logically unless he [reflects and] reasons logically,⁶⁶ since in that case the [awareness of an] obligation to consider [a matter] logically would come through the religious law. Thus, a person would not know of an obligation⁶⁷ to consider [a matter] logically except by the certainty of the religious law; and the certainty of the religious law is dependent upon the sign of a miracle to the truthfulness of the Prophet, peace upon him, and the sign of a miracle to his truthfulness is based upon logical reasoning.

Thus, a knowledge of the obligation to practice logical reasoning is based upon logical reasoning, and logical reasoning is based upon the knowledge of its being an obligation, so there would be a circular argument, and the silencing [of the prophets] would be implied.

[In reply to the Mu'tazilah] we [i.e., Isfahani and orthodox Muslims] would say that if logical reasoning had been made an obligation on rational grounds, then the implication would be that all the prophets, peace upon them, would have been silenced [as needless for guidance]. But the conclusion of their argument is false.

To explain the structure of inherent necessity [in their argument], it is that the obligation to practice logical reasoning is not inherently necessary, since it is based upon premises that [in turn] are based upon precise logical steps. Thus, the knowledge that logical reasoning is an obligation, is based, among the Mu'tazilah,

1. upon their knowing that it is an obligation to have experiential knowledge of God Most High, and
2. upon their knowing that logical reasoning is the way to it, and
3. that there is no other way to it. Moreover,
4. if there is some factor without which an obligation cannot be fulfilled, then that factor itself is an obligation.

All of these premises are logical in nature and they require precise logical steps. Now, what is based on something logical in nature will itself be logical in nature, and thus, the obligation to practice

⁶⁶ [lā ya'alām wujūb al-naẓar 'alayhi illā bi-al-naẓar].

⁶⁷ The MS adds here, "laid upon him" ['alayhi]. MS Garrett 989Ha, along with L and T, omit this.

logical reasoning would be logical in nature. So a person who has been placed under religious obligation [i.e., as member of a religious community] and is being questioned would have the right to say, "I will not undertake to reason logically about anything as long as I do not know there is an obligation to use logical reasoning, and I would not know of the obligation to use logical reasoning unless [I should learn of it] through logical reasoning."

Thus, [in the Mu'tazilah argument] logical reasoning would depend upon the knowledge of its being an obligation, and the knowledge of its being an obligation would depend upon logical reasoning. So therefore, a circular argument is implicit; and the silencing [of all the prophets, as being needless] would be implied.

END OF THE INTRODUCTION

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BOOK ONE

REALITIES POSSIBLE

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BOOK I: REALITIES POSSIBLE

SECTION 1: UNIVERSALS

CHAPTER 1: CLASSIFICATION OF THINGS KNOWN

1. *According to the Asha'irah and the Mu'tazilah*

A known thing, or, an intelligible¹ may be either 1) externally realized, this being an 'existent',² or 2) not [such], this being a 'non-existent'.

Some [Asha'irah colleagues] have made the classification three-fold, saying that a 'realized entity' is 1a) what is realized in terms of itself, this being an existent, or 1b) what is realized in terms of something else, this being an 'attribute-state', such as the 'genera' and the 'differentiae'.³ They defined the attribute-state as a descriptive

¹ Calverley here preferred to use "intelligible" rather than "knowable" to translate [al-ma'lûm], lit. a "thing known." Cf. *Dictionary of Scholastic Philosophy*/Bernard Wuellner. Milwaukee, Wis.: Bruce Publ. Co., c. 1956 where 'intelligible' is defined: "knowable by the intellect; capable of being received by the possible intellect." Thus, "intelligible" is actually the more general term, and it may be subdivided into "the known" [ma'lûm] and "the rational" [ma'qûl]. Note that Jurjani in his *Ta'rifat* provides definitions for ['aql] and for [ma'qûlât] and ['ilm], but not for [ma'lûmât].

F.D. Razi used the same term for 'intelligibles', dividing them into existents and nonexistents in his *Muhassal*, p. 52. His compendium is more of a reference work than a well planned course of study. Iji follows Razi and Baydawi here (*Mawaqif*, index, p. 5).

Ibn Sina's *al-Isharat wa-al-Tanbihat* is a lecture course in selected philosophical topics for intelligent adults. The undoubted erudition that this late work contains is deliberately kept out of reach of novices in philosophy in both the topical organization and discussions. Indeed, slow learners are told in a proverb, and plainly enough, that their heredity is the cause of their incomprehension. See the note in the Introduction above, Chapter 2, last page. See also S. Inati's observations on this theme in his English translation of the *Isharat*, Part 1, Logic, p. 3.

² As the lecture progresses the concepts of the 'existent' and of 'existence' are very broad and general, being well known because they are so universal. This universal, or 'absolute', sense will be translated as 'general existence'.

³ Item 2), the third class in this latter scheme, is what is not real externally, being called a 'nonexistent'.

quality, neither existent nor nonexistent in itself, and subsisting in an existent.^{4,5}

The Mu'tazilite majority say that if a thing known is something 'realized in itself', it would be [both] an 'external entity' and a 'certainty'. But if [the thing known] should not be something realized [in itself], as an 'impossibility', then it would be an 'excluded entity'. If the certainty has being among the individual quiddities it is an existent, but if not, then it is a nonexistent.

They also designate as 'nonexistent' what is 'excluded', for the 'certainty' according to them is more general than the 'existent', because it is subdivided into the existent and the nonexistent, and the nonexistent is more general than the excluded, because it holds true both of the certainty L 76 and of the excluded.

The Mu'tazilite minority who assert the existence of the attribute-state add another [fourth] classification, saying that if an existing entity is independent in its being then it is an existent essence, but if it is not independent then it is an attribute-state.

Isfahani says:

L 76, T 35, MS 37b

BOOK I: REALITIES POSSIBLE

After Baydawi had finished with the INTRODUCTION he began on the internal BOOKS. He devoted Book One to "Realities Possible", because the 'realities possible' are fundamental concepts for the 'realities divine', and knowledge of the fundamental concepts precedes knowledge of what the fundamental concepts support.

He set out [Book I] in three sections,—because inevitably [the topic]⁶ would be on [either] 'substance', or 'accident', or, what includes both of them, namely, 'universals', which are general matters, that is, they comprise all existents,—Section 1 MS 38a being on 'universals', Section 2 on 'accidents', and Section 3 on 'substances'.

⁴ R.M. Frank's article "Hāl" in *EnI-2-Suppl.* pp. 343–8, esp. pp. 346 ff., clarifies this concept, and names Baqillani and Juwayni as chief proponents of the Ash'arite usage of it, followed by Shahrastani and F.D. Razi. Of this usage a brief summary may here be hazarded as follows: "Hāl" is the knowable and nameable active 'field' [or, 'state', or, 'mode'] of a given attribute's operation, here translated as "attribute-state." [Ed.]

⁵ F.D. Razi, *op. cit.*, p. 60:15–17.

⁶ MS gl: I.e., what is set forth in Book One.

SECTION 1: UNIVERSALS

Baydawi devoted Section 1 to 'universals' because they are fundamental concepts for the topics on 'accidents' and 'substances'. In this section he set forth six chapters: 1. Classification of things known; 2. Existence and nonexistence; 3. Quiddity; 4. Necessity and possibility; past eternity and temporality; 5. Singularity and plurality; 6. Cause and effect.

CHAPTER 1: CLASSIFICATION OF THE INTELLIGIBLES

[This classification is] according to the views held by our [Asha'irah] colleagues,⁷ by the Mu'tazilah, by the Philosophers [and by the Mutakallimun].

1. *According to the Asha'irah and the Mu'tazilah*

Scholar colleagues [of the Asha'irah] who do not affirm the attribute-state have divided the 'intelligible' into 1) what is existent in external reality and 2) what is nonexistent in it, because the 'intelligible' is either something realized externally, this being an existent, or something not realized externally, this being a nonexistent. So with them, the intelligible is limited to two classes.

But a minority among our [Asha'irah] colleagues make the classification threefold, saying that if what is realized externally is 1a) something realized in terms of itself without considering anything else, that is, its reality does not derive from the reality of something else, then it is an 'existent';⁸ and if it is 1b) real in terms of something else, that is, its reality derives from the reality of something else, then it is an 'attribute-state' such as the genera and the differentiae. There is no necessity [here] to construe the genera and the differentiae as anything more than what is the conventional usage among logical dialecticians, because the mention of 'genera' and 'differentiae' is for the sake of example, not for confining the attribute-state within

⁷ MS gl: I.e., as a consensus [ishā'at al-ijmā'], meaning, of the rank of scholars ['ulamā'].

⁸ T alone adds, supported by a gloss in Garrett MS 989Ha: such as are the essences.

them. Further, [the Asha'irah] have defined the attribute-state as "a descriptive quality, neither existent nor nonexistent in itself, subsisting in an existent."

Thus, Baydawi's expression, "a descriptive quality", avoids confusion with [its being] an essence, for an essence is not an attribute-state. His expression, "not existent in itself", avoids confusion with attributes that are existent in themselves.⁹ His expression, "nor nonexistent [in itself]", avoids confusion with L 77 attributes of nonexistence.¹⁰ And his expression, "subsisting in an existent", avoids confusion with attributes which are nonexistent in themselves and do not subsist in an existent.¹¹

Objection has been raised that this definition is correct only from the point of view of our [Asha'irah] colleagues, but that among the Mu'tazilah, MS 38b according to their fundamental concept, it is not correct. Some attribute-states are a certainty in nonexistence, 'substantiality', for example. Substantiality, according to [the Mu'tazilah], occurs with an essence in the circumstances of both existence and nonexistence, thus, it may be an attribute of a nonexistent.¹² So, this definition would be inadequate according to [the Mu'tazilah] view and thus would be invalid.

It can be replied that [the Asha'irah who support the attribute-state] had not said, "subsisting only in an existent", so [in their view] it would be admissible for [an attribute-state] to subsist in both an existent and a nonexistent, and substantiality may do so likewise.

The majority of the Mu'tazilah hold that, if a known thing is something realized in itself, that is, if it is fixed and distinguishable externally, then it is both an 'external entity' and a 'certainty'. And if it is not something realized in itself, that is, if it is not fixed and distinguishable externally, as whatever is an 'impossibility', then it is an 'excluded entity'. If the 'certainty' has being in the individual quiddities, then it is an existent, and if it does not have being in the individual quiddities, then it is a nonexistent. [The Mu'tazilah] also designate as 'nonexistent' whatever is 'excluded'.

⁹ L 76 gl: Such as the positive attributes [al-sifāt al-thubūtiyah] like knowledge [ilm], power [qudrah], blackness, whiteness, and others.

¹⁰ MS gl: I.e., the negative attributes, such as the nonliving [al-lā ḥayy], the unknowing [al-lā 'ālim], the nonmineral [al-lā jamād] and others.

¹¹ MS gl: As [real] possibility for a nonexistent quiddity [ka-al-imbkān li-māḥiyah ma'dūmah].

¹² So in L, T and MS Garrett 989Ha. The MS reads: "an attribute not subsisting in an existent [sifah ghayr qā'imah bi-mawjūd]."

Thus, [for them] a 'certainty' is more general than an existent, because it may be subdivided into the existent T 36 and the non-existent. The nonexistent is more general than the excluded, because the nonexistent may apply truly both to the excluded and to the certainty. In summary, [the Mu'tazilah majority] divide the intelligible into the excluded and the certainty, and they divide the certainty into the existent and the nonexistent.

The Mu'tazilah minority who assert the attribute-state have added another [a fourth] class [of intelligibles] when they say that if an existing entity is independent in its factual existence, that is, if its existence is not dependent upon the existence of something else, then it is an existent essence. But if the existing entity is not independent in its existence, that is, if its existence is dependent upon the existence of something else, then it is an attribute-state.

In summary, our [Asha'irah] colleagues who do not assert the attribute-state have divided the intelligible into two classes, the existent and the nonexistent. They have set up the existent's counterpart as no more than the one [class], the nonexistent.

But the minority of our [Asha'irah] colleagues who do assert the attribute-state divide the intelligible into three classes: the existent, the nonexistent and the attribute-state. Thus they set up the counterpart of the existent as two classes, the nonexistent, and the attribute-state.

The Mu'tazilah majority who do not assert the attribute-state divide the intelligible into three classes: the excluded, the certainty not having being in the individual quiddities, and the certainty that does have being in the individual quiddities. Thus, they set up the counterpart of the existent as [both] the certainty not having existence in the individual quiddities and the excluded.

The Mu'tazilah minority who do assert the attribute-state divide the intelligible into four L 78 classes: the existent, the attribute-state, the certainty not having its being in the individual quiddities, and the excluded. Consequently, the existent is a) an intelligible, b) a certainty having being in the individual quiddities, and c) is independent in [its] being. By the lack of independence in [its] being the attribute-state becomes valid [as an intelligible],¹³ and by the lack

¹³ In the present context of the intelligible, the three things mentioned here become valid, completing, with the existent, the four classes of intelligibles of the Mu'tazilah minority.

of having being in the individual quiddities the certainty not having being in the individual quiddities becomes valid [as an intelligible], and by the lack of any certainty the excluded becomes valid [as an intelligible].

Baydawi said:

L 78, T 36

2. *According to the philosophers and the Mutakallimun*

The philosophers hold that if anything that may validly be known has any reality whatsoever then it is an existent, but if it does not have that [reality] then it is a nonexistent.

They divide the existent into 'mental' and 'external'; and [they divide] the external into what will not accept nonexistence, this being the 'necessary', and [into] what will accept it, this being the 'possible'.

[They divide] the possible into 1) what will have being in a subject-substrate—that is, a substrate that gives subsistence to what has inhered within it—this being the 'accident', and 2) what will not so exist, this being 'substance'.

The Mutakallimun, however, divide [the existent] into what has no beginning to its existence, this being 'the Eternal One',¹⁴ and into what has a beginning, this being the 'temporal phenomenon'.

They divide the temporal phenomenon into 1) what occupies space, which is either 1a) substance or 1b) what inheres within it, this latter being the accident, and into 2) what is the opposite of both of them [i.e., an originated entity not occupying space either as substance or accident]. But then they judged [the latter alternative] to be impossible, because if such were to be in existence, then the Creator Most High would have commonality with it in this [existence] but would differ from it in everything else, and so a combination of entities would be implied. But this is prohibited, because a sharing in accidental qualities, especially in the negative, does not require any combination [of entities].

¹⁴ The Eternal One [al-qadīm].

Isfahani says:

L 78, T 36, MS 39a

2. *According to the philosophers and the Mutakallimun*

After [Baydawi] set forth the classification of intelligibles according to the views of the Asha'irah and the Mu'tazilah he went on to state their classification according to the views of the philosophers [and the Mutakallimun].¹⁵

The philosophers hold that if anything that may validly be known has any reality whatsoever¹⁶ then it is an 'existent', but if it does not have any reality whatsoever, then it is a 'nonexistent'. Thus, they made the resource-pool for their classification everything that may validly be known, in order to include both whatever is known in actuality and everything else. Indeed, what is possible to be known is more general than whatever is known [in actuality] and everything else; and many things are possible to be known but they are not known. And further, if the resource-pool for the classification should be made [only] that which is [actually] known,¹⁷ then whatever may validly be known but [currently] is not something known would exit from the classification.

Then [the philosophers] divided the 'existent' into the 'external' and the 'mental', because if it has reality in the external then it is an 'external existent', and if it has reality in the mind then it is a 'mental existent'.

They divided the external existent into the 'necessary' and the 'possible', because if the external existent should not accept non-existence in its essence then it would be 'necessary' in its essence. And indeed, that which is necessary in its essence would not be receptive to nonexistence, not for any other reason.

¹⁵ Baydawi and Isfahani tacitly include the advocates of philosophical theology with the philosophers, differentiating them from the advocates of strictly dogmatic theology as transmitted by the Asha'irah and Mu'tazilah schools.

¹⁶ MS gl: I.e., in the mind, or externally [in the concrete].

¹⁷ Gloss by Jurjani in L and MS: . . . "Perhaps his [Isfahani] intent is, 'what has importance for being known' [min sha'nihi an yu'lam]; in this event there is no distinction."

But Baydawi's use of the phrase "mā yaṣīḥ an yu'lam" more probably designates the entire body of current knowledge plus valid additions as they are discovered, rather than a distinction in importance. The same phrase, used by Abu Rashid al-Nisaburi [fl. ca. 1025], is in an unqualified definition, quoted and translated by R.M. Frank [in his article, "al-Ma'dūm wa-al-mawjūd", in MIDEO 14 (1980) p. 196] "... that which may be known ..."

But if [the external existent] should accept nonexistence in its essence then it would be a 'possible reality' L 79 in its essence. And indeed, that which is possible in its essence would be receptive to nonexistence, not for any other reason.

Then [the philosophers] divided the 'possible' into a) what will exist in a subject-substrate—that is, a substrate that gives subsistence to what inheres in it—this being the 'accident', and into b) what is not thus, that is, what will not exist in a subject-substrate, this being 'substance'.

By his expression, "that gives subsistence to what inheres within it", [Baydawi] avoided confusion with 'primal matter'. For even though [primal matter] may be the substrate for the 'form' which is 'substance', [i.e., the 'substantial form'], nevertheless MS 39b [primal matter] does not give subsistence to what has inhered within it; rather whatever has inhered within it gives it subsistence, for the [substantial] form is that which gives subsistence to primal matter.

The Mutakallimun divided the external existent into that which does not have a beginning to its existence, that is, nonexistence does not precede it, this being The Eternal [One], and what has a beginning to its existence, that is, nonexistence does precede it, this being the 'temporal phenomenon'.

They divided the 'temporal phenomenon' into 1) what occupies space,—that is, uses up the space, namely, what is estimated to be the void that is occupied by a [concrete] thing, [a void] which, if [a concrete thing] should not occupy it, would be empty,¹⁸ as is the interior of a water vessel,—this being 'substance'; and into 2) what inheres in what occupies space, this being the 'accident'; and into 3) what is the opposite of both of these, namely, the opposite of both what occupies space and what inheres in what occupies space, this being a temporal phenomenon that neither occupies space nor inheres in what occupies space.¹⁹

¹⁸ What is estimated to be the 'void' [al-farāgh al-mutawahham]; empty [khalāʾ].

¹⁹ MS gl: [Baydawi's] statement, "Then the Mutakallimun" means the majority of them; otherwise, it would be "Some of the Mutakallimun" hold this view because of what has preceded to the effect that the soul [nafs] is a substance, separate [muḥāriq], not occupying a space, nor inhering in what occupies a space, the orderer [mudabbir] of this bodily frame which is perceived by the senses, which understands, is addressed, and is punished. The investigative philosophers were inclined to this view and it is the choice of the Imam al-Ghazali and many of the masters of mystical revelations from among the Sufis.

Thereupon the Mutakallimun judged it to be an impossibility²⁰ that a temporal phenomenon should neither occupy space nor inhere in what occupies space, because if a temporal phenomenon that neither occupied space nor inhered in what occupies space should become realized, then the Creator Most High would share with it in neither occupying space nor inhering in what occupies space, but He would differ from it in everything else; since that wherein would be the commonality would not be that wherein would be the difference.

Then the implication would be that the Necessary Existent [One] was compounded of that in which there would be both a commonality and a difference. But this is prohibited, because a commonality in accidents, especially those sharing in negative qualities, does not require that there be any compounding in the essence. The simple elements²¹ share together in accidents such as 'existence', 'temporality' and 'unity', and there is nothing composite in their essences; and every pair of simple elements will share together in keeping away from them anything other than themselves, and there is nothing composite in their essences.

²⁰ MS: [aḥālū].

²¹ The simple elements [al-basā'it].

CHAPTER 2: EXISTENCE AND NONEXISTENCE

1. *The conception of existence is intuitive*

The conception of 'existence'¹ is intuitively self-evident, from these aspects:

a. ['General existence'] is a part of my own 'existence', [myself being] one who forms conceptions intuitively.

b. The intuitive judgmental assent to the fact that negation and affirmation may neither appear both together [in a statement] nor may be eliminated both together is [logically] preceded by the conception of existence and nonexistence and of their difference from one another, this [difference] being a duality, the conception of which depends upon the conception of unity. Moreover, that which [logically] precedes what is intuitive most appropriately itself should be intuitive. Thus the conceptions of these things are intuitive.

An objection has been raised that if this judgmental assent [to the conception of existence] were absolutely intuitive, then it would not need any supporting proof; otherwise, it receives no benefit [from the proof].

¹ Baydawi begins to analyze the concept of existence with the fact that it is an intuitive concept. He has already discussed 'things known' and 'things existing'. His approach is different from that of Ibn Sina, who takes up the concept of existence at the beginning of Volume 3 of his book *al-Isharat wa-al-Tanbihat*. Ibn Sina's commentator, Nasir al-Din Tusi, writes:

"Existence" here [i.e., in Ibn Sina's thought] is the "general" [or, "absolute] existence", that may be predicated both a) of the existence that has no cause, and by analogy b) of the existence which does have a cause. That which may be predicated by analogy of [many] different things is not the quiddity itself [of these things], nor is it part of their quiddity; rather, it is only an accidental quality of them. Therefore, ["existence"] is an [accidental] effect that is dependent upon a cause. So, the venerable teacher [Ibn Sina] said [introducing this section], "[This is] on existence and its causes."

Ibn Sina then starts out by explaining that 'existence' is not the same as 'sensate reality', nor is 'existence' comprised within the category of 'sensate reality', although people imagine that both of these are true. We are indebted to Tusi for explaining and defining the 'existence' that is meant here.

Our position is that the intuitive character of absolute judgmental assent [to the intuitive conception of existence] depends L 80 upon intuitive knowledge of a particular thing, not upon acquiring knowledge of the intuitive character of [the knowledge about the particular thing].

Another objection might be raised that assent [to the intuitive conception of existence] depends in some respect upon the conception of a part [of existence], not upon the conception of the actual reality of [existence]; so no inference should be made from the conception of [existence] to the intuitive character [of the conception of it].

c. Existence is simple, because it would be impossible for it to be compounded from something qualified by it or [qualified] by its opposite. [Existence] may neither be defined nor described, since there is nothing better known than it is; and if there were, a description would not explain the core of its real nature.

Isfahani says:

L 80, T 37, MS 39b

CHAPTER 2: EXISTENCE AND NONEXISTENCE

[Baydawi] set forth Chapter Two on existence and nonexistence in five topics: 1. The conception of existence [is intuitive]; 2. Existence is a commonality [among all existents]; 3. Existence is an addition [to the quiddities]; 4. The nonexistent is not a certainty [externally]; 5. The attribute-state [is to be excluded].

1. *The conception of existence is intuitive*

The conception of existence is an intuitive one, from three aspects.

a. Existence is a part of my existence,² [myself being] one who forms conceptions intuitively, and a part of one who forms conceptions intuitively would be [itself] an agency that forms conceptions intuitively. Thus, existence is an agency that forms conceptions intuitively; thus, the conception of existence [as an agency] is intuitive. But there is more in this that requires consideration.³

² MS gl: [the word "existence"] being in construct with the pronominal suffix [yā'] of the first person.

³ MS gl: [I.e., consideration] from two aspects.

1. In the first place, since from MS 40a the intuitive conception of my existence there may be inferred only the fact that the conception of existence [in general] is by intuition, [then] if existence in nature and kind should be a commonality among existing things [that inference] would be impossible [either way], whether according to the opinion of⁴ those who say that the 'existence' of each thing is specific to it and there is no commonality [of existence] except in the use of the word, which is obvious, or, whether according to the opinion of those who say that 'existence' is a causal-entity that is a commonality among all entities that exist. Now, because [existence] is predicated by analogy⁵ of existing [individual] entities,⁶ and what is predicated by analogy of individual entities is external to the real nature of the individual entities, therefore, existence [in general] is something external to my existence. And no inference may be made⁷ from the conception of one entity⁸ to the conception of something else that is external to it while being accidental to it.

2. In the second place, because, assuming that existence [in general] is a part of my existence, but that from the fact that the conception of my existence is by intuition the only inference to be made is the fact that the conception of existence [in general] is by intuition, [then] if the conception of my existence⁹ which is by intuition should be the conception of my existence in its actual reality, that [inference] would be impossible. And whether the conception of my existence is by one manner or another,¹⁰ still it may not be inferred from the conception of my existence as being in some way

⁴ T alone adds here: al-Imam [al-Razi] and . . .

⁵ Causal-entity [ma'na²]; predicated by analogy [maqûl bi-al-tashkîk].

⁶ Following T and MS Garrett 989Ha. However, L and the MS either abridge or omit this sentence. The MS text has a marginal indication to insert: "... by analogy of individual entities, [and what is predicated by analogy of individual entities] is external to the real nature . . ."

⁷ T and MS Garrett 989Ha read: wa-lâ yalzam; L reads: wa-lam yalzam; MS reads: fa-lâ yalzam.

⁸ T alone adds here: "such as my existence."

⁹ T follows L by inserting the definite article [taṣawwur al-wujûdî]. The MS and MS Garrett 989Ha do not have it.

¹⁰ T adds here: [badîhatan], while the MS adds marginally [taṣawwuran] and [badîhatan], to read: [idhâ kāna taṣawwur wujûdî taṣawwuran bi-wajhin-mâ badîhatan]. L and MS Garrett 989Ha do not have these additions.

by intuition that the conception of existence [in general] is by intuition.

b. The second aspect [in which the conception of existence is intuitive] is that intuitive judgmental assent—to the fact that both negation and affirmation may not appear together [in a statement] nor may they be eliminated together, that is, the intuitive judgmental assent that a thing is either existent or is nonexistent—is [logically] preceded by the conception of existence and nonexistence, and by the conception of the difference [of these two] from one another. This [conception of their difference] is implied by the conception of 'duality', and that conception depends [in turn] upon the conception of 'unity'; [and all of these stand] in a [relationship of] dependency as imperatively necessary as is the dependence of [any] judgmental assent upon the conception of its own limiting terms. Moreover, that which [logically] precedes L 81 what is intuitive most appropriately should itself be intuitive. Thus the conceptions of these matters are intuitive.

Objection has been raised that if this judgmental assent is absolutely intuitive, that is, if it is intuitive in all its parts, then the fact that existence is an intuitive conception should need no proof. This is because, if [the judgmental assent] is intuitive in all its parts, and [one] of the total number of its parts should be 'existence', then 'existence' would be an intuitive conception, and there would be no need for proof of its being intuitive. And if [the judgmental assent] should not be absolutely intuitive, there [still] would be no benefit [from the proof], because if it should not be absolutely intuitive, MS 40b then some of its parts would not be intuitive and it would be conceivable that 'existence' would be in that [nonintuitive] portion, so the intuitiveness of [the judgmental assent] would not be implied.

The reply [to the objection] is that [the judgmental assent's] intuitiveness in an absolute sense depends upon whether knowledge of the part would be by intuition, not upon acquiring knowledge of the fact that knowledge of the part would be by intuition, for it is admissible that knowledge of the part would be by intuition, [but] without its intuitiveness being known. So in order to establish the fact that the knowledge of the part is by intuition there is need for proof.

A [further] objection could be raised in order to invalidate this reason, [namely,] that if it should be known that this judgmental assent is absolutely intuitive, then there would be no need for proof. [This is] because, a) if it should be known that [the judgmental

assent] is absolutely intuitive, then it would be known that the knowledge of its parts is by intuition, and therefore it would be known that the knowledge of existence is by intuition, and thus, the certainty that knowledge of existence is by intuition would have no need for proof. But, b) if it should not be known that [the judgmental assent] is absolutely intuitive, then there still would be no benefit [from the proof], since in that case it would be possible that some of [the judgmental assent's] parts would not be intuitive, with existence [possibly] being from this [latter portion].

Moreover, no one can say that knowledge that [the judgmental assent's] intuitiveness is absolute does not depend upon the knowledge that knowledge of the part is by intuition, because knowledge that its intuitiveness is absolute would be impossible without knowing that knowledge of the part is by intuition.

Then our author [Baydawi] proposed a refutation of this [second aspect], saying that an objection could be raised that a judgmental assent is dependent upon the conception of every one of its limiting terms in whatever respect, and not upon the conception of its actual reality. Therefore the intuitive conception of existence, in whatever respect, does not entail an intuitive conception of the real nature of existence, nor of its intuitive character from all aspects. For it is admissible that the conception of it in some respect may be intuitive, while the conception of its real nature or the other aspects may not be intuitive.

Further, another objection could be raised by someone saying that they do not grant that what precedes T 38 intuitive assent most appropriately should be intuitive. Intuitive judgmental assent is such that the mind's judgment will not depend upon it unless there is a conception of both its terms. So it would be admissible that the conception of both its terms, or of one of the two, should be acquired [by logical reasoning] even though it should precede intuitive assent.

c. Existence is intuitive of conception because we do form a conception of existence, and the conception of it is either by 1. intuition or by 2. acquisition [from logical reasoning,] since there is no intermediate [method] between the two. L 82 Here, the second [alternative] is prohibited, so the first is indicated.

We [Isfahani] have said "The second [alternative] is prohibited" only MS 41a because if [the conception of existence] should be acquired, then its acquisition would be by way of either a delimiting definition or a descriptive definition. But the conclusion is false,

because 'existence'¹¹ is simple; because if it should be compound, then it would have a part, and its part would be either an existent or a nonexistent, both of which would be impossible.

The first [of these latter two alternatives] would be [impossible] because of the prohibition against composing a thing from something that it qualifies; otherwise, the implication would be that the thing would be part of itself. And the second [alternative is impossible] because of the prohibition against composing a thing from something that is qualified by its opposite; otherwise, the implication is that the opposite of the thing would be a part of it.

Therefore, with 'existence' there would be no 'part' nor would there be a composition [of parts], for it is simple. It may not be defined by delimitation nor by description, because a description [of something] would be only by way of what is better known than it is, and there is nothing at all better known than existence. Even if there should be anything¹² better known than existence, still a descriptive definition would not explain the core of the thing's real nature.

And regarding the [third, i.e., "c."] aspect stated,¹³ any objection [to it] is prevented by the fact that from the impossibility of defining a thing no inference can be made to its [supposedly] intuitive character.

Objection could be raised by someone saying that they do not grant that if a part of existence should be an existent then the implication would be that existence would be a part of itself, since the implication would be that existence would be a part of the existent¹⁴ only if the aspect of existence being with the existent should be in the sense of being a part. But this would be impossible, for an existent is a thing having existence, and the aspect of existence is with it as an attribute. So there would be no implication that the existence would be a part of itself.

No one should say that in that case the implication would be that what we have assumed to be a part of existence would be made a subject-substrate for it, as this would be impossible. Indeed, our

¹¹ L alone has "wujūb", in error for "wujūd."

¹² L & T have no definite article with "thing," while the MS and MS Garrett 989Ha have "the thing."

¹³ MS gl: [I.e., the third aspect] of our position, "because we do form a conception of existence . . ."

¹⁴ The MS alone here has "existence" [al-wujūd]; L, T and MS Garrett 989Ha have "the existent" [al-mawjūd].

position is that there is no impossibility in the fact that part of a thing may be a subject-substrate for [the thing itself].

Consider [the terms], “rational being” in relation to “man”, for when it is said, “The rational being is a man”, this is a true judgment, because each of the two equal [terms] is said truly of the other. “Man” which is predicated of “rational being” is not exactly the reality of the rational being nor does it enter into the reality of it, but is outside of it and concomitant to it. Everything that is predicated, being external and concomitant, is accidental,¹⁵ and the subject posited is the accident-receiving subject-substrate for it.

Understand that it is really true that the conception of ‘existence’ is by intuition, and nothing is better known than existence. Indeed, whatever can be known is known only through [its] existence, but existence is not known by way of anything. MS 41b

Our expression, “the conception of existence is intuitive” is an intuitive proposition, and judging [this proposition] depends upon nothing but the conception of its two terms. The ‘intuitive’ is an obvious concomitant to the conception of existence, and in affirming the certainty of [the ‘intuitive’] for the conception of existence there is no need for a middle term, but rather, in [the intuitive] there is enough [meaning] for the conception of both terms.

But it may be difficult for some minds to have certainty about the relationship existing between the two terms of intuitive judgmental assent because of the lack of a L 83 conception of its two terms from the standpoint on which the certainty depends. The estimation process obstructs the intellect¹⁶ in perceiving the intelligibles,¹⁷ so a conception of the two terms of intuitive judgmental assent does not take place as by right it should. Thus, there is need for an admonition, and what is stated in explanation is merely an admonition for the [reasoning] soul¹⁸ to be alert to form [its] conception of the two terms of intuitive judgmental assent from the standpoint on which certainty depends, not proof. But if [the conception] should be in the form of a proof, then impossibility and objection would not make it very helpful.

¹⁵ MS gl: [I.e.] to it. The MS and MS Garrett 989Ha indicate the syntax of the terms here, although MS Garrett 989Ha omits the word “external.”

¹⁶ L & T have “to crowd” or “to obstruct” [yuzāḥim] while the MS and MS 989Ha have the meaning “to resist” or “to hinder” [yu‘ārid].

¹⁷ Intelligibles [ma‘qūlāt].

¹⁸ The MS reads, “might be alerted” [li-yatanabbah].

Baydawi said:

L 83, T 38

2. *Existence is a commonality among all existents*

What is understood by 'existence' as a general consensus [among scholars] is that it is a descriptive quality shared as a commonality [among all existents],¹⁹ but the Shaykh [al-Ash'ari] has disagreed.

Our position is that we may assert positively that a thing exists, but be uncertain as to whether it is something necessary or [merely] a substance or an accident. And we divide the existent into these classes, the division originating in the commonality.

Isfahani says:

L 83, T 38, MS 41b

2. *Existence is a commonality among all existents*

What is understood by 'existence' with a majority of the investigating scholars among the philosophers and Mutakallimun is that it is a descriptive quality that is shared as a commonality by all existing things.

But Shaykh Abu al-Hasan al-Ash'ari disagreed with them, for he said that every thing's 'existence' is identical with its 'quiddity', and there is no commonality except in the use of the word 'existence'. Our author [Baydawi] preferred the opinion followed by the majority,²⁰ and he argued for it²¹ from two aspects:

a. The first [aspect] is the statement that if existence should not be a commonality among all existing things then no certitude would ever be realized as to a thing's existence, together with the uncertainty as to whether the thing was necessary or was [merely] a substance or an accident.²²

But this conclusion is false, so the premise is likewise. As for the logical necessity used here, it is because if existence should not be

¹⁹ 'Existence', a general quality shared as a commonality among all existents, is seen in its absolute, universal or 'general' aspect.

²⁰ L & T read: "preferred what the majority followed" [ikhtār mā dhahaba ilayhi al-jumbūr], while the MS and MS Garrett 989Ha read: "preferred the opinion of the majority" [ikhtār madhab al-jumbūr].

²¹ MS Garrett 989Ha: [ihtajja 'alayhi]—here the antecedent of ['alayhi] is coded to indicate "the opinion followed by the majority", rather than al-Ash'ari.

²² L precedes these two nouns with [wa], while the MS precedes them with [aw].

a commonality then it would be a particularity, equally whether it was an essential quality of particular entities in that it would be the completion of their quiddity,²³ either as a differentia or as an accident for them. On both suppositions uncertainty about the particular entities would imply uncertainty about [the existence] itself, by an imperative inference from uncertainty about the particular entities to uncertainty about their specific essential qualities and their distinguishing properties. For the exclusion of a thing implies the exclusion of its specific essential quality MS 42a and the exclusion of its distinguishing property. So an inference would be made from the uncertainty, whether a thing would be something necessary or [merely] a substance or an accident, to an uncertainty about its [very] existence.

To explain the falsity of the conclusion, it is that we may decide firmly as to the existence of a thing, but yet be uncertain as to whether it is something necessary or it is [merely] a substance or an accident. Indeed, if we have verified the existence of a possible reality, then we may decide firmly that its cause exists, while yet being uncertain whether its cause is something necessary, or is [merely] a substance or an accident.

b. The second aspect is the statement [of the majority's opinion] that we do divide L 84 the existent into 'necessary existent' T 39 and 'possible reality', and we divide the 'possible reality' into 'substance' and 'accident'. The origin of the division by imperative necessity must be something that is a commonality among the divisions. Now something existent would be a common factor among a necessary existent and a substance and an accident, and so, from the fact that something existent would be a commonality among these, an inference is made to the fact that existence [itself] is a commonality among them.

Objection has been raised that it is not necessary for the origin of the division to be a commonality among all the divisions, but rather only among some, since the objecting position is believable, [namely], that a "scholar"²⁴ may be either something necessary or a possible reality, but there is no implication that the "scholar" would

²³ L mistakenly has a masculine pronominal suffix here but not at the points following; T corrects the error.

²⁴ Vowelling [ʿālim] is given in the MS.

be a commonality among all possible realities because of the fact that some [of the possible realities] would not be a "scholar."

Likewise, it would be valid to class each of two entities, between which there is some general factor from whatever aspect, with the other although there may be no commonality among all the examples: as when we say, "A living being [i.e., an 'animal'] is either white or not white," and "that which is white is either a living being or not a living being."

The reply [to this objection] is that the origin of the division in all the divisions must be a commonality among all of them, and, since something existent is the origin of division in all [cases of] the divisions, its being a commonality among them all is [indeed] necessary.

A counterobjection has been raised to both these aspects [of the argument] in that the commonality that is necessary in both of them is [merely] in the use of the word ['existence'], and not in terms of the sense. But this objection amounts to nothing, for if we should stop considering 'existence' [merely] as a word, and should consider what is understood [by it], then there would be an implicit commonality of meaning.

Baydawi said:

L 84, T 39

A proof from negation

An inference of proof has been drawn that the notion of the negation [of existence] would be a unity, since if [the negation's] opposite should not be a unity then intellectual comprehension of it would be frustrated. But this inference is impossible because every necessary positive affirmation has a negation opposite to it.

Isfahani says:

L 84, T 39, MS 42a

A proof from negation

This [inference of proof mentioned] is spurious, because the notion of existence is a characteristic common to all existing things.

A summary of [the spurious inference] is that the notion of the 'negation [of existence']²⁵ would be a unity among all nonexistent

²⁵ MS gl: Namely, the nonrealization of actuality.

quiddities. MS 42b If there should be no unity in what is the opposite of it, meaning the notion of 'existence', then intellectual comprehension of it would be frustrated between the notion of existence and the negation of it.

And that is just what our position is, namely, that a thing is either nonexistent or it is existent. But that conclusion is necessarily false, since intellectual comprehension is one of the clearest of all intuitions. To explain the logic here, it is that if there should be no unity in the notion of existence, which would be the opposite of the notion of the negation of existence as a unity, then it would be admissible for something to be neither nonexistent nor existent in this [kind of] existence, but rather to have some other [kind of] existence. But this would be impossible because we do not grant that the notion of the negation [of existence] would be a unity, since every necessary positive affirmation would have a negation opposite to it.

The reply to this is that although every necessary affirmation would have a negation opposite to it, nevertheless these [single] negations would have a commonality in the absolute nature of their negation, by the inherent necessity of the fact that the absolute nature of their negation applies to all of [the negations], which proves that L 85 there would be a commonality.

Whoever should suppose that [intellectual] comprehension is really achieved only in relation to a particular existence and a particular nonexistence would be in error. That is so because, if we should say, "Zayd is existent either in his own particular existence or he is nonexistent in his own particular nonexistence," then the intellect would not be convinced by this delimitation. Rather, it would demand²⁶ some other division [of meaning] somewhat in contrast. But if we should say, "Zayd is either existent or [he] is nonexistent," then the intellect would be convinced by the delimitation without any demand for another division [of meaning].

Thus, we know that the overall division [of meaning] which the intellect accepts, would be only in relation to an absolute existence or to its absence, so the implication is that there is a unity in what is understood by each of the two [concepts].

²⁶ L & T read [yatlub], while the MS and MS Garrett 989Ha read [talaba].

Understand that these aspects [of the argument] are [only] admonitions to keep in mind, and are not proofs. [This is] because the fact that existence is a causal factor²⁷ having commonality [among all existents] is an intuitive conception, and what is intuitive does not depend upon proof.

Baydawi said:

L 85, T 39

3. *Existence is an addition to the quiddities*

[Our doctrine] that [general] existence is an addition to [the quiddities] differs from the position of the Shaykh [al-Ash'ari] absolutely, and from that of the philosophers specifically in regard to the Necessary Existent.

In regard to the realities possible [we base this doctrine on the following arguments].

a. We form conceptions of [the possible realities], but still have doubt whether their existence is external or mental, until a proof demonstration will stand on them.

b. The possible realities accept both existence and nonexistence, but their existent natures are not like that.

c. The quiddities differ among themselves [individually], but [general] existence is a commonality [among them], so it would not be identical to them nor would it be some part of them. If it were otherwise, [the quiddities] would have differentiae which would have a commonality with them in what is understood by existence, and then [the differentiae] would have other differentiae, and so the argument would be an infinite series.

²⁷ Descriptive quality [waṣf]; causal factor [ma'na].

Isfahani at the end of his discussion here exchanges [waṣf] for [ma'na] in his modification of Baydawi's phraseology presenting 'existence' as a commonality.

Note the article on "Ma'na, Part 2, 'In Philosophy'" by O.N.H. Leaman, in En-1-2, for a summary of research on this term. In the same article's "Part 1, 'In Grammar'" by C.H.M. Versteegh, note also that the term's use is seen in Isfahani's last paragraph in Topic 2 above.

Isfahani says:

L 85, T 39, MS 42b

3. *Existence is an addition to the quiddities*

When [Baydawi] had finished explaining the theory that [general] existence is a characteristic having a commonality²⁸ among all existing things, he proceeded with his plan to present the third topic, on the fact that [general] existence is an addition to the quiddities, for indeed the fact that it is an addition to the quiddities is a corollary to its being a commonality.

Now the majority of the Mutakallimun have accepted the doctrine that [general] existence is an addition to the quiddities in the cases of both the Necessary Existent and of possible realities. This [doctrine] differs absolutely from the position of Shaykh Abu al-Hasan MS 43a al-Ash'ari, that is, in regard to both the Necessary Existent and the possible reality, for he held that the existence of every entity is identical with its quiddity.

And [this doctrine] differs from the position of the philosophers [especially] in regard to the Necessary Existent, for they hold that the [general] 'existence' of the Necessary Existent is identical with its 'quiddity'; but [they hold that] the [general] 'existence' of the possible realities is an addition to their 'quiddities'.

Now as to [general] existence being an addition [to the quiddities] in [the case of] possible realities, this position is based on three points:

a. The first [point here] is [Baydawi's] summary statement that we form a conception of the possible quiddities, but we are still uncertain as to whether their existence is external or mental until proof will stand on either their external or mental existence.

Now, if their existence should not be an addition to their quiddities, then we would not be uncertain as to their external or mental existence when forming a conception of them. That L 86 is because, if existence should not be an addition to their quiddities then it would be either identical with them or included within them. On both these suppositions there would be no uncertainty as to their existence when conceptions are formed of them, because of the impossibility of there being uncertainty as to a thing's quiddity and

²⁸ MS gl: I.e., an accidental quality generalized.

its essence²⁹ while forming a conception of it. That is because if a conception is to be formed of something, there must be certainty that it has an essence; that is, it is not possible to form a conception of something until after a conception has been formed of its essence by which it is characterized. So it is not conceivable for there to be uncertainty as to the external and mental existence of a thing while in the process of forming a conception of its essence. It is not possible to be uncertain T 40 whether a thing should be characterized by what constitutes it while a conception of it is being formed.

If an objection should be raised as to how there can be uncertainty in the mind as to a thing's existence while a conception of it is being formed, since the conception of it is an expression of its existence in the mind, then the response would be that, although the conception of a thing is an expression of its existence in the mind, nevertheless the conception of a thing is not that actual thing, but rather it is an addition to that thing. So, there can be uncertainty regarding its existence in the mind while a conception of the thing is being formed. For this reason it is possible to deny that something has existence in the mind while at the same time acknowledging that there is a conception of it.

If a counterobjection should be raised that it is admissible there would be no uncertainty as to the existence of quiddities, of which we have not previously formed conceptions, at the time when we do form conceptions of them, then the response would be that a) assuming there is an equality³⁰ that³¹ would not be admissible, MS 43b and b) assuming there is an analogy, the implication would be that [existence] would be an addition [to the quiddity].

b. The second [point for general existence being an addition to the quiddities of the possible realities] is [Baydawi's] summary statement that the possible realities are receptive to both existence and nonexistence, but their existent natures are not receptive either to existence or nonexistence. This is because a thing is not receptive

²⁹ [māhiyah] quiddity; [dhāt] essence.

³⁰ 3 43a gl: I.e., on the supposition that there is equality of existence among all the quiddities.

³¹ MS gl: I.e., that doubt or difference of view.

to itself or to its opposite. So existence would not be the same as the quiddity, nor would it enter into it.³²

c. The third point is [Baydawi's] summary statement that the quiddities [of the possible realities] are different from one another, but [general] existence is a commonality [among them], from the standpoint of the causal factor.³³

Thus, existence would not be identical to the quiddities. Otherwise, the implication would be either a) that there would be a unity among the quiddities,³⁴ or b) that there would be a difference among the existent natures.³⁵

Nor would [existence] be a part of the quiddities. [This is] because if existence should be a part of the quiddities, then the implication would be that a quiddity would be composed of parts without limit in actuality. But this conclusion is false.

As for the logical necessity in use here, it is because if [general] existence should be a part of the quiddities, then it would be the most general of the essential qualities³⁶ that are shared, as no essential quality is more general than it is. So, it would be a genus, and the [various] species subsumed under it would be differentiated one from another by differentiae that would be existents. Otherwise, an existent would subsist in a nonexistent, which is impossible. And if the differentiae were to be existents when the assumption is that existence is the genus for existents, then the implication would be L 87 that the differentiae would be composed of the differentiae and the genera, and likewise differentiae of differentiae, and the argument would be an infinite series. So, the implication would be that a quiddity would be composed of an unlimited number of parts in actuality.

As for the falsity of the conclusion, this is because if the parts of the quiddity were to be unlimited [in number], then there would be an implicit impossibility of the realization of any one of the quiddities, because its realization in that case would depend upon the realization of all of its parts which are without number, and this

³² MS gl 41b: The receptor [qābil] is different from what is received [maqbul], and a thing may not be other than itself.

³³ Causal factor [ma'na']. Isfahani adds the last phrase to Baydawi's text.

³⁴ MS gl: While the situation is that they are different.

³⁵ MS 43b gl: While the assumption is that [absolute] existence is a commonality. Thus, each of these two [alternatives a) and b)] is false.

³⁶ [dhātīyāt].

would be impossible. For it is flatly impossible to have the realization in actuality of those entities that are a) unlimited in number, and are b) all simultaneously arranged together within existence.

Objection has been raised, that if [Baydawi] wanted³⁷ the judgment to be a) partial [in application], namely that existence would be an addition to [only] some of the quiddities, then that is granted. But, if he wanted it to be b) universal [in application], namely, that existence would be an addition to all of the quiddities, then the opposite of that [alternative b)] would be [to have] only a partial [application], MS 44a that is, existence would not be an addition to all of the quiddities. In that case then, it would be admissible for [existence] to be an addition to some [of the quiddities], or to be identical to some [of them], or to be a part of some [of them]. So then, nothing that you [the disputant] have mentioned, neither the unity of the quiddities nor their composition from an unlimited number of parts, would be implied.

Response [to this objection] is made, that for existence to be differentiated among the accidental phenomena, either in [the case of] an [individual] quiddity itself, or in [the case of] an intrusion [into a quiddity as a part], it would not be conceivable; because if [existence] should be required among the accidental phenomena, then it would have to be the same³⁸ in all [cases], and if it should be required for an individual quiddity or for a part, then likewise [it would have to be the same in all cases].

If a counterobjection should be raised not granting the necessity [for existence] to be equal in them,³⁹ since that [necessity] would be implied only if [existence] should be an unambiguous notion,—but [the necessity] is impossible because [existence] is analogous in nature,—then the response would be that, if [existence] should be analogous in nature, then it would be an addition to all [the quiddities], and this is what was to be demonstrated.⁴⁰

³⁷ L, followed by T, has the phrase, "by the judgment" [bi-al-ḥukm], which appears here to be redundant, possibly by scribal error. The MS at 43b, and MS Garrett 989ha, omit it.

³⁸ MS gl: I.e., it should be displayed in all the quiddities.

³⁹ MS gl: I.e., in all the quiddities.

⁴⁰ MS gl: I.e., by reason of the fact that a difference in existence [among the quiddities] is not conceivable.

By this [reasoning] there is refuted also the objection that,⁴¹ if existence should be the genus for the quiddities, then [existence] would be a general accidental quality of the differentiae, so there would be no need for differentiae in distinguishing between the differentiae and the quiddities. Furthermore, the genus would become a general accidental quality of the differentiae only if the genus should be something other than existence, but when the genus is existence, then it does not.

Baydawi said:

L 87, T 40

Ash'ari's variant argument

The Shaykh [al-Ash'ari] argued that if [existence] were to be an addition [to a quiddity] then it would be subsisting in a nonexistent. We hold, rather, [that it subsists] in the quiddity as such.

Isfahani says:

L 87, T 40, MS 44a

Ash'ari's variant argument

Shaykh Abu al-Hasan al-Ash'ari argued that existence is not an addition to the quiddity,⁴² because if existence were to be an addition to the quiddity, then existence would be subsisting in a nonexistent. But the conclusion is false.

As for the logical necessity in use here, it is that if existence should be an addition to the quiddity then a quiddity would not be an existent in itself; thus 'existence' would be subsisting in a nonexistent. The falsity of the conclusion derives from the impossibility for a thing [i.e., 'existence'] to subsist in what is characterized by its opposite [i.e., 'nonexistence'].

Our author's response [to the Shaykh's argument] is that we do not grant L 88 that if existence were to be an addition to the quiddity then it would be subsisting in a nonexistent. Rather, existence

⁴¹ MS gl: [Brought by] 'Tbri—i.e., 'Abd Allah ibn Muhammad al-Farghani al-'Tbri, who died 743/1342, a contemporary of Isfahani and author of a commentary on Baydawi's book, *Tawallif al-Anwar*.

⁴² In the first three usages of the word in this section L alone has the plural, "quiddities", while T and the MS have the singular.

would be subsisting in the quiddity itself, not in a quiddity characterized either by existence or nonexistence.

Let no one say that the quiddity in itself would be either an 'existent' or a 'nonexistent' as there is no intermediate option between them: MS 44b since if it were the first [alternative], then the implication would be that existence would not subsist in it because of the impossibility for existence to subsist in an existent;⁴³ and if it were the second [alternative], then the implication would be that existence would be subsisting in something characterized by its opposite, which would be impossible.

Our doctrine is that the quiddity in itself is neither an existent nor a nonexistent, in the sense that the quiddity in itself is not identical to [either] one of these two, nor does either one of them enter into [the quiddity]. But [this doctrine] does not mean that the notion of the quiddity itself is separated from either one of them, T 41 for its separation from either one of the two is impossible; otherwise, it would be implied that there would be an intermediate option. Moreover, if the quiddity itself is neither an existent nor a nonexistent in the sense mentioned, then no intermediate option is implied, and nothing prevents 'existence' from subsisting in it.⁴⁴

Understand that the fact that [general] existence is an addition to the quiddity is within the thinking activity of the intellect. This is in the sense that when the intellect forms a conception of the quiddity, it finds it to be neither identical with 'existence' nor 'inclusive of existence'; rather, it finds that existence is not [the quiddity] itself, and does not enter into it. For to ascribe existence to a quiddity would be [merely] a transaction of the intellect, not as the ascription of whiteness to a body. [The case is not that] the quiddity has no existence as a separate individual [entity] but that its accidental quality called 'existence' does have another existence [of its own], and that then the existence inheres in the quiddity as whiteness in a body. Rather, [the case is that] when the quiddity has being [in fact], then its 'being' constitutes its 'existence'. The quiddity is receptive to existence only when its 'existence' is within the intellect; thus, existence is not an addition [to the quiddity] except within the intellect.

⁴³ MS 44b gl: Because it implies that a thing would be an existent having two existences, which is not admissible.

⁴⁴ MS gl: I.e., in the quiddity itself.

Baydawi said:

L 88, T 41

Special case of the necessary existent

In regard to the Necessary Existent⁴⁵ [absolute, or general existence is an addition to the quiddity] for a number of reasons.

a. The first [reason] is that if [the Necessary Existent] should be [only] an abstraction [i.e., without any identifying qualities such as general existence], then it would have been made abstract by some agent other than itself; otherwise, its concomitants would negate one another and it would become a possible reality.

Objection is raised that its abstraction is due to the nonexistence of a necessary cause for its accidental qualities.

We respond that in that case [the Necessary Existent] would be in need [even] for its [own] nonexistence!

Objection is raised that [general] existence is analogous in nature.

Our position is that even if this should be granted still it would not be impossible for there to be equalities in complete reality; otherwise, there would be implied either a) the composition of [general] existence [i.e., in the Necessary Existent] or b) a complete distinction between the two existences [i.e., of the Necessary Existent and of the possible realities], and the falsity of both of these [alternatives] is clear.

Furthermore, [this is so] because whatever is predicated about things by analogy would have to come from their accidental qualities. [This is true] since if the subject-substrates should resemble one another or belong to the same genus in some other respect, then the two impossibilities mentioned [above: a) and b)] would be implied. L 89 But if [the subject-substrates] should be different from one another, then each of the two [existences] would differ from the

⁴⁵ [Al-wājib]: Together with the concept of the 'Necessary Existent', we suggest that there may be the presence of a recognition of the fact that God is at once the 'Necessary Existent' and the 'Agent of divine obligation', although no additional term, such as [wa-al-mūjib] has been postulated as accompanying the mention of the 'Necessary Existent'. Strictly philosophical analysis no doubt precludes such an addition, but perhaps the religious awareness of mankind perceives its function. A summary reference to this is presented as Note 2 at the beginning of Isfahani's Foreword. This postulated concept accompanying mention of the 'Necessary Existent' may be suggested in translation as the 'Necessary [and Obligating] Existent' [or, 'Presence']. For the purpose of following the two authors' argument here, the standard translation, 'Necessary Existent' is sufficient.

other in essence but would have commonality with the other in what is understood by this accidental quality [i.e., 'general existence']. And this is exactly what has been claimed.

b. The second [reason that general existence is an addition to the quiddity of the Necessary Existent] is that if [a 'specific' existence]⁴⁶ by itself should be the source of the possible realities, then every ['specific' existence] would have commonality in [this source]; otherwise, negation would be a part of [all the possible realities].

Objection is raised that abstraction [from qualities] is the condition for the effective causality of [general existence].

Our position is that in that case every [individual, specific] existence would be a cause, unless each effect were to abort upon losing the condition that would make its occurrence possible.

c. The third [reason that general existence is an addition to the quiddity of the Necessary Existent] is that the [the Necessary Existent's 'general' existence] is a known thing, while its essence is not a known thing. Thus, [the Necessary Existent's 'general' existence] is not its 'essence'.

Isfahani says:

L 89, T 41, MS 44b

Special case of the necessary existent

After he had finished his exposition of the fact that [general] existence is an addition [to the quiddities] in [the case of] the possible realities [Baydawi] began his argument that [general] existence is an addition [to the quiddity] in [the case of] the Necessary Existent, and [in his argument] he presented three reasons.

a. The first [reason in the argument that general existence is an addition to the quiddity in the case of the Necessary Existent] is [Baydawi's] summary statement that, if [general] existence should not be an addition⁴⁷ [to the quiddity in the case of] the Necessary

⁴⁶ See Isfahani's commentary on this section for the designation 'specific'.

⁴⁷ L. 89, first gloss: "Understand that there is no dispute about the addition of 'general existence' to the quiddity of the Necessary Existent; the dispute is only about whether 'specific existence' is an addition [to it]. However, what has been presented is not proof of it." [From *[Sharh] Maqasid [al-falarifah]*, Sa'd al-Din al-Taftazani's commentary upon Abu Hamid al-Ghazali's *Maqasid al-falarifah*].

This gloss mentions the distinction between 'general, or absolute, existence' and 'specific existence' [the latter of which Nicholas Heer (in his translation of Jami's

Existent, then the Necessary Existent would be a [‘specific’] existence confined within the restriction of abstraction.⁴⁸

This is because [general] existence⁴⁹ is a commonality among the Necessary Existent and the possible realities, but the [general] existence of the Necessary Existent is not an ‘addition’ to [the Necessary Existent] Itself.⁵⁰ So, it would be implied that the [term], “Necessary Existent”, would be a way of speaking about a [specific] existence MS 45a that would be abstracted,⁵¹ that is, a [specific] existence that would not be an accidental quality. In that case, if the [specific] existence should be abstracted, then it would have been made abstract by a cause other than the [specific] existence [itself]. But this conclusion would be false and the premise likewise.

Now, the inherent logic used here is that, if the abstraction of the [specific] existence should not be due to a cause other than the [specific] existence [itself], then its abstraction would be due to the ‘essence’ of the [specific] existence [itself].

Thus, the abstraction would be a concomitant of the ‘essence’ of the [specific] existence⁵² in itself.

However, [general] existence in the possible realities is an accidental quality that is not required to be an abstraction,⁵³ so, the implication is that there would be a mutual incompatibility among the concomitants of the [general] existence in itself, which would be impossible. So, it would be a certainty, that if the [specific] existence should be an abstraction, then it would have been abstracted by a cause other than itself. But that conclusion would be false, because if the [specific] existence were to be abstracted in the Necessary Existent by a cause other than itself, then [the Necessary Existent] would be [merely] a possible reality, which is impossible.

The Precious pearl) prefers to call ‘proper existence’]. Where these terms are provided this distinction begins to clarify Baydawi’s argument. For this reason, we have taken the risk of inserting the adjective ‘general’ or ‘specific’ before ‘existence’ where no adjective is provided but there is some indication in the context of what it is. Ed.

⁴⁸ MS gl: Which is the absence of any display of accidental qualities [‘adam al-‘urūḍ].

⁴⁹ MS gl: I.e., general, or absolute, existence.

⁵⁰ The MS codes the identification of this antecedent.

⁵¹ The MS alone reads: abstracted from the quiddity.

⁵² The scribe of L repeated the last sentence in error.

⁵³ L and T add, “in the realities possible”, redundantly. The MS and MS Garrett 989Ha do not add this.

Now, if this reasoning should be repeated here point by point,⁵⁴—namely, that the [general] existence having commonality among the Necessary Existent and the possible realities either 1) would require abstraction, or 2) would require nonabstraction, or 3) would require neither abstraction nor nonabstraction, with the first alternative (1) also requiring abstraction in the possible realities, and with the second (2) also requiring nonabstraction in the Necessary Existent, and with the third (3) [also] requiring that both abstraction and nonabstraction be due to a cause other than [this general] existence, thereby implying that the Necessary Existent would be a possible reality—then [the statement of the reasoning] would be [clearer and] preferable.

Objection has been raised that what is lacking a cause is the non-abstracted, namely, the displays of all accidental phenomena;⁵⁵ while as for the abstracted, namely, the nondisplays of accidental phenomena, there is thus no⁵⁶ need L 90 for a cause. Rather, [the case is that] the abstraction of [specific] existence is due to the non-existence of a necessary cause for the displays of the accidents,⁵⁷ and since abstraction⁵⁸ is the lack of any displays of accidents, the non-existence of a necessary cause for [the] displays of accidents is sufficient.⁵⁹

Our author [Baydawi's] response to this objection is summarized in two reasons.

1. The first [reason responding to this objection] is that in that case a) the Necessary Existent would have need for the necessary cause for the display of accidental qualities to be absent, and b) the absence of the necessary cause for the display of accidental qualities would be something other than [the presence of] the Necessary

⁵⁴ [wa-law qurrira hādhā al-wajh bi-hādhā al-wajh].

⁵⁵ Displays of accidental phenomena [al-'urūd]: properly, this plural belongs with the act of displaying, not with the 'accidental qualities' being displayed, the plural of which would be [a'rād]. However, it may that [al-'urūd] is used here as the plural of 'accident'.

⁵⁶ L alone omits [fa-lā] here in error. T, the MS and MS Garrett 989Ha all include it for the sense.

⁵⁷ [lil-'urūd].

⁵⁸ L: "since for abstraction, namely, the lack of any accidents . . .", T and the MS: "since abstraction is the lack of any accidents . . ."

⁵⁹ MS gl: He means that as abstraction is a matter of nonexistence the lack of a cause would be enough.

Existent, thus c) the Necessary Existent would have need for something other than itself, and so it would be [merely] a possible reality.

2. The second reason [responding to the objection] is that if the abstraction of [specific] existence should be due to the absence of the necessary cause for the display of accidental qualities, then the Necessary Existent would [even] have need for its own non-existence (!), because the necessary cause for the display of the accidental qualities of existence [to appear] among the quiddities still would be the Necessary Existent.⁶⁰

[A second] objection has been raised, namely, that [specific] existence is not the kind of nature that requires the equality of its individual examples MS 45b in abstraction and nonabstraction. Rather, [specific] existence is analogous in nature, that is, it is predicated of its individual examples by analogy; and if something is predicated of individual examples by analogy, there would be no implication of equality⁶¹ among the individual examples that are its concomitants⁶² in either abstraction or nonabstraction, because of their difference⁶³ in quiddity. Consider [for example], a light that is predicated by analogy in relation to [other] lights: although the [bright] light of the sun requires that [even] dim-sighted [people] take notice [of it], another light not of the sun does not require [such] taking notice of it.

[To this second objection, Baydawi], our author, responded that we do not grant that [specific] existence is predicated by analogy. [General] existence is predicated of the [general] existence of the Necessary Existent and of the [general] existence of a possible reality equally. And even if it were to be granted that [specific] existence is analogous in nature, still the analogy would not prevent an equality between the [general] existence T 42 of the Necessary Existent and the [general] existence of the possible realities in complete reality.⁶⁴

⁶⁰ MS gl: And this requires consideration, for we do not grant that the necessary cause for the accidents [to appear] among the quiddities absolutely would be the Necessary Existent, but rather, the necessary cause for the accidents of existence [to appear] among the possible realities is the Necessary Existent.

⁶¹ MS gl: since a commonality in an accidental quality would not necessarily cause a unity in the real nature.

⁶² MS gl: I mean the Necessary Existent and the possible reality.

⁶³ T alone adds here: "in that case" [hīna'idhīn].

⁶⁴ Here we follow the MS. L, T and MS Garrett 989Ha read: [tamām al-māhiyah], the last source having a helpful gloss: "That is, in absolute (general) existence."

[This is] because, if the analogy were to prevent equality between the [general] existence of the Necessary Existent and the [general] existence of the possible realities in complete reality, then there would be implied either a composition in the [specific] existence which would be the Necessary Existent, or a complete differentiation between the two [general] existences, that is, the [general] existence of the Necessary Existent and the [general] existence of the possible realities. So, the [objection's] conclusion is false and the premise is likewise.

As for the logic in use here, it is that, if the analogy were to prevent an equality in complete reality, then the [general] existence of the Necessary Existent and the [general] existence of the possible realities would be two different things in complete reality.⁶⁵ In that case, the only alternatives would be either that there would be the commonality of an essential quality⁶⁶ between the two [general] existences, or that there would not be. The first [alternative] would require composition in the [specific] existence which would be the Necessary Existent, and the second [alternative] would require a complete differentiation between the two [general] existences [i.e., of the Necessary Existent and the possible realities].

As for the falsity of the [objection's] conclusion, that is because it has become obviously clear how false is [the argument for] the composition of the [specific] existence, which would be the Necessary Existent, and how false would be a complete differentiation between the two [general] existences. [This clarity] is due to the explanation [we have given] that [general] existence is a causal entity that is a commonality between the Necessary Existent and a possible reality.

But if the analogy does not prevent an equality in complete reality, then the [general] existence of the Necessary Existent and the [general] existence of a possible reality would be two equals in complete reality, so the implication would be that they were equals in regard to the concomitants,⁶⁷ and so mutual incompatibility would be prevented between their concomitants. Furthermore, [the implication is that] whatever is predicated of [these] entities [i.e., the Necessary Existent and the possible reality] by analogy MS 46a would have to be accidental qualities L 91 of those entities, because

⁶⁵ L & T here include the word "perfect/complete", while the MS and MS Garr. 989Ha do not.

⁶⁶ Essential quality [dhātīyun].

⁶⁷ MS gl: I.e., abstraction and nonabstraction.

predication of the quiddity and of its essential qualities to their individual examples would be on an equal basis, and would not be a predication by analogy.

Now, if the subject-substrates⁶⁸ were to resemble each other or belong to the same genus in some respect other than [general] existence,—since if [general] existence⁶⁹ were to be an accidental quality of the [specific] existence of the Necessary Existent and of the [specific] existence of the possible realities, then the subject-substrates, which are the ‘specific existences’,⁷⁰ would not belong to the same genus in respect of [general] existence, but rather their being of the same genus would be in some respect other than [general] existence⁷¹—then the two impossibilities that have been set forth would be implicit, namely a) mutual incompatibility between the concomitants,⁷² assuming a mutual resemblance [between their two general existences], and b) composition of the Necessary Existent, assuming [their] membership in the same genus.

But, if there should be a mutual distinction between the subject-substrates, namely, the ‘[specific] existence’ of the Necessary Existent and the ‘[specific] existence’ of the possible realities, then each of these two ‘[specific] existences’ would be distinct from the other in essence, and different from [the other] in reality, but having commonality with the other in the notion of this accidental quality, namely, [general] existence as a commonality. Therefore, the Necessary Existent would be a reality different from the possible realities, but having commonality with them in [general] existence, this [general existence] being a quality added to the reality [of the Necessary Existent]. And this is precisely the claim.

A counterobjection may be raised that ‘general existence’, being a descriptive quality that is a commonality between the [specific] existence of the Necessary Existent and the [specific] existence of the possible realities, is predicated by analogy of [these specific]

⁶⁸ MS gl: I.e., the particular existential natures [al-wujūdāt al-khāṣṣah].

⁶⁹ MS gl: I.e., general existence.

⁷⁰ L and T here supply the adjective “specific”, while the MS and MS Garrett 989Ha omit it.

⁷¹ MS gl: Because “being of the same genus” [al-tajānus] is a way of saying that they are one in genus, therefore, assuming that [general] existence would be an accidental quality, it would not be a genus.

⁷² MS gl: These being abstraction in the Necessary Existent and nonabstraction in the possible realities.

existences which are the individual examples [of the general existence].⁷³ [This is] because the [process of] predication by analogy is a universal that applies to its individual examples not equally, but rather differently. [This application takes place] either

1. through [the proportionality of] advancing/increasing and retreating/decreasing,⁷⁴ as the application of the [universal] continuous quantity⁷⁵ to an amount, or to the whiteness [of varying degree] occurring in its own substrate; or

2. through [the attribution of] priority⁷⁶ and the lack of it, as the application of the [universal] 'one' to [both] what is by no means divisible⁷⁷ and to what may be divided in some respect other than that in which it is one;⁷⁸ or

3. through [the inequality of] strength/intensity and weakness/faintness,⁷⁹ as the application of [the universal] whiteness upon snow or ivory.

The application of [general] existence to the [specific] existences which are accidental qualities of the quiddities, is inclusive of [three] variations: MS 46b

4. It applies to the [specific] existence of a cause and the [specific] existence of its effect through [the proportionality of] advance/increase and retreat/decrease;

5. [it applies] to the [specific] existence of a substance⁸⁰ and the [specific] existence of an accident through [the attribution of] a priority and the lack of it; and

6. [it applies] to the [specific] existence of what is permanent and to the [specific] existence of what is not permanent through [the

⁷³ The MS codes this general existence as the antecedent here.

⁷⁴ [bi-al-taqaddum wa-al-ta'akhhur].

⁷⁵ T alone supplies here the word "quantity" to complete the phrase [al-kamm al-muttaṣil]. L and the MS and MS Garrett 989Ha have only "the continuous." Definition of [al-kamm al-muttaṣil] is from M. Saeed Sheikh, *A Dictionary of Muslim Philosophy*.

⁷⁶ [bi-al-awlawfiah].

⁷⁷ MS gl: This being the true One [al-wāḥid al-ḥaqīqī], as the [One] Necessary Existent [wājib al-wujūd].

⁷⁸ MS gl: His expression: "upon what may be divided", [i.e.], such as are the individual examples of the simple quiddities, for they are united in respect to having the same real nature but different in respect to individuation.

⁷⁹ [bi-al-shiddah wa-al-ḍu'f].

⁸⁰ MS gl: For the [specific] existence of [a substance] is more certain and of firmer subsistence than the [specific] existence of an accident.

inequality of] strength/intensity and weakness/faintness. Thus, [general] existence is predicated of the [specific] existences by analogy.

[Baydawi's] statement that—even if [the claim that general existence is analogous in nature] should be granted, still analogy does not prevent equality among the individual examples [i.e., the specific existences] in complete reality,—is, however, not sound; his statement [continues:]—otherwise, there would be implied either composition [in the Necessary Existent] or a complete distinction between the two [general] existences.⁸¹

But we [Isfahani] respond [to this] that a complete distinction between the two [specific] existences in reality would not preclude [their] having commonality L 92 in [general existence which is an] accidental quality. For it is admissible that an individual example of [specific] existence, this being the very reality of the Necessary Existent, should be totally distinct from individual examples that are the [specific] existences of the possible realities, while at the same time all together have commonality in 'general existence' which is an 'accidental quality' of [all] those individual examples.

Regarding [Baydawi's] statement that—if the subject-substrates should be mutually distinct then each of them⁸² would be different from the other in essence but would have commonality with it in what is understood as this 'accidental quality' [i.e., general existence], this being exactly what was claimed—although it is inconsistent with what was said at first—and it is, however, false.

[Baydawi's] statement is a) inconsistent with what was said at first because the first statement was to the effect that analogy does not prevent equality in complete reality. Therefore, realization of equality would be made necessary along with the analogy; but complete distinction between the subject-substrates, assuming the analogy, would be inconsistent with [the realization of equality].

[The foregoing statement] also is b) false because of the claim that the 'specific existence' of [the Necessary Existent]⁸³ is an addition to its quiddity, as is the 'specific existence' of the possible realities.

⁸¹ MS gl: I.e., the [general] existence of the Necessary Existent and the [general] existence of the possible realities.

⁸² MS gl: I.e., the [specific] existence of the Necessary Existent and the [specific] existence of the possible realities.

⁸³ L, T and MS Garrett 989Ha have "its", while the MS has "the" specific existence. The relative pronoun evidently refers to the Necessary Existent, as contrasted with the possible realities.

This [claim] is implied neither by the analogy nor by the complete distinction of the subject-substrates. Rather, the analogy requires that 'general existence' be an accidental quality that is an addition to the the 'specific existences', while the distinction in the subject-substrates requires that a distinction be made between the specific existence of the Necessary Existent and the specific existence of the possible realities. But this⁸⁴ does not necessarily imply that 'specific existence' is an accidental quality in the Necessary Existent as it is with the possible realities. And the thesis claimed is nothing but this fact. MS 47a

b. Baydawi's second [main] reason⁸⁵ is, that if the Necessary Existent should be [specific] existence as an abstraction, then the source of the possible realities would be [this specific] existence alone, that is, by itself, without respect to anything else. But this conclusion would be false.

As for T 43 the logic here, a) it is that the source of the possible realities is the Necessary Existent, and b) the Necessary Existent is [specific] existence as an abstraction, and, c) due to the restriction of abstraction, [the Necessary Existent] has no opportunity for effective causality; otherwise, negation⁸⁶ would be part of the source of the possible realities, which would be an impossibility.

Regarding the falsity of the conclusion, that is because if the source of the possible realities should be [specific] existence alone, then every [specific] existence would share with the Necessary Existent in being the source, because every [specific] existence would be equal to the Necessary Existent in [the specific] existence itself, which would be impossible.⁸⁷

An objection has been raised not granting that if the source of the possible realities should be abstracted [specific] existence, then it would be implied that negation would be a part of the source. That would be implied only if abstraction were part of the effective cause, which is impossible. But it is admissible that abstraction should be a condition for the effective causality of the source, but not a

⁸⁴ MS gl: I.e., this requirement of a distinction.

⁸⁵ MS gl: Of the three reasons presented supporting the argument that general existence is an addition in the Necessary Existent.

⁸⁶ MS gl: I.e., the lack of any qualification.

⁸⁷ MS gl: Because of the impossibility for Zayd to be a cause both of himself and of his [own] causes.

part of it, and it is admissible that negation should be a condition for the effective causality of the effective cause.

[Baydawi] has responded that in that case⁸⁸ every [specific] existence would be a [secondary] cause, unless its effect should be prevented because of the loss of its condition,⁸⁹ the occurrence of which is possible.⁹⁰ L 93

A counterobjection might be raised that the source of the possible realities is that specific existence which is identical with the Necessary Existent. It is distinct from the [specific] existence of the possible realities, but shares with it in the general existence which is an accidental quality of both the specific existence of the Necessary Existent and of the [specific] existence of the possible realities. Therefore, it would not be implied that every [specific] existence would have commonality with the Necessary Existent in being a [secondary] cause.

c. Baydawi's third reason [supporting the argument that general existence is an addition to the quiddities in the case of the Necessary Existent] is that a) the '[general] existence' of the Necessary Existent is a known thing, because its [general] existence is that [general] existence which is a commonality known intuitively; but b) its 'essence' is not a known thing. Therefore, its '[general] existence' is something other than its 'essence'. And in that case⁹¹ the [general] existence would be either a) within the essence of [the Necessary Existent], and that would imply composition, or b) external to its essence, thus being an addition [to its quiddity].⁹²

An objection could be raised a) that MS 47b the existence that is known intuitively is the general existence, which is an accidental quality, not the specific existence that is identical with the essence of [the Necessary Existent]; and b) that no inference should be made from the [knowledge by] intuition of the general existence, which is an accidental quality, to [any knowledge by] intuition of the specific

⁸⁸ MS gl: I.e., when abstraction is a condition for the effective causality.

⁸⁹ MS gl: Which is the abstraction of [specific] existence.

⁹⁰ Gloss in L and the MS [slightly expanded] from 'Ibri's commentary on Baydawi's *Tawālī*': This response is weak, because we do not grant that abstraction is a possible occurrence with every [specific] existence, because [we have pointed out that] the [specific] existence of the Necessary Existent is distinct from the [specific] existence of the possible realities.

⁹¹ MS gl: I.e., when its [general] existence is other than its essence.

⁹² MS gl: This being the logical goal of the argument [al-maṭlūb].

existence, which is the essence of [the Necessary Existent]. So there would be no implication that the specific existence would be an addition [to the quiddity of the Necessary Existent].⁹³

Baydawi said:

L 93, T 43

The philosopher's variant argument

The philosophers argue that if the [general] existence of [the Necessary Existent] should be an addition to [the quiddity], then [the Necessary Existent] would need a subject-substrate for [the general existence]. Whereupon it would need a cause, either a) to accompany, and thus [the Necessary Existent's] essence would take precedence in [specific] existence over its own [general] existence, and an infinite series argument would be implicit, or, b) to make a distinction [between the general existence and the essence], and thus [the Necessary Existent] would be a possible reality.

The reply [to this argument] is that it is not necessary for an accompanying cause to take precedence in [specific] existence. Indeed, with the possible realities the quiddity is a causal entity that is receptive to their specific existences, and the parts of the quiddity serve as a cause supporting the subsistence of [their specific existences], in spite of the fact that [the parts] do not take precedence in [general] existence.

Isfahani says:

L 93, T 43, MS 47b

The philosopher's variant argument

The philosophers argue in support of their position that the [general] existence of [the Necessary Existent] is identical with its essence, to the effect that if [the general existence] should be an addition [to the quiddity] then [the general existence] would have need for its own subject-substrate. [This is] because a descriptive characteristic that is made an accidental quality would have need for what it describes, as its subject-substrate, and therefore its [general] existence would be a possible reality, because anything having need for something else would be a possible reality.

⁹³ MS gl: This is what was claimed.

Thus, the [general] existence [of the accidental quality] would have need for a cause that either a) would accompany [it], this [accompanying agent] being [either] its essence or one of its attributes, the implication being that its essence would take precedence in [specific] existence over its [general] existence,⁹⁴ and then the discussion of that circumstance would repeat the discussion of the first circumstance, and the argument implicitly would be an infinite series; or b) [the accidental quality's needed cause] would make a distinction [between the Necessary Existent's essence and its general existence], so the Necessary Existent in its [general] existence would have need for something else, and thus, [the Necessary Existent] would be [merely] a possible reality.

In response, we [Isfahani] would prefer [to say] that the need of [the general] existence would be for an accompanying cause, which would be the [Necessary Existent's] own essence.

[Baydawi's] statement is that then the implication would be that the [Necessary Existent's] essence would take precedence in [specific] existence over its [own general] existence.

We [Isfahani] say that we would not grant [this]. There is no necessity for an accompanying cause to take precedence in [specific] existence over its effect.

The quiddity of the possible realities is a cause receptive to their [various specific] existences, although it does not take precedence L 94 in its [general] existence over their [specific] existence; otherwise, argument in an infinite series would be implied. Moreover, the parts of the quiddity [of the possible realities] are a cause supporting the subsistence [of the possible realities], although [the parts] do not precede [the possible realities] in [general] existence.⁹⁵

⁹⁴ MS gl: [This is] from the [logical] necessity for the cause that brings into existence to precede the effect in existence; so its essence would have existence in advance of its [own general] existence.

⁹⁵ Baydawi speaks about the general and specific existences of both the possible realities and the Necessary Existent in the foregoing pages. From the aspect of their participation in some group or other, the existence of any member of the group is called 'general, or absolute existence'. Considered only from the aspect of an individual entity, the existence of any member is called 'specific existence'. Here, each of the two aspects of existence is considered as 'external', but each also can be treated as 'mental' in reference. Baydawi states at the outset that his position differs from that of al-Ash'ari in some ways and from the philosophers in some ways.

The translation by Nicholas Heer of the theological work titled, *The Precious Pearl*, by 'Abd al-Rahman Jami [817/1414–898/1492], provides an opportunity to compare

Baydawi said:

L 94, T 43

A corollary

A corollary [of this discussion] is that when an entity is characterized as having [general] existence this is not by reason of some attribute subsisting in it. Indeed, the subsistence in it of an attribute [logically] derives from the fact that [the entity] is an existent. But if the fact that it is an existent were to be made dependently derivative, then a circular argument would be implicit.

Isfahani says:

L 94, T 43, MS 47b

A corollary

Since the accompanying cause would be something more general [in concept] than an essence or an attribute, and the accompanying cause [conceived] as an attribute would be more specific,⁹⁶ and since the general would be universal, and the specific would be particular and adjunctive in relation to [the universal], the particular being a corollary subordinate to the universal, [Baydawi] set up this question as a corollary to the proposition that the [general] existence of the Necessary Existent is an addition [to its quiddity].⁹⁷

a. We hold that the quiddity of a thing may be a cause for one of its [own] attributes, MS 48a as a 'four' [is a cause] for evenness in number. And

b. [we hold] that one of the attributes [of the quiddity] may be a cause for another attribute [of it]; for example, a differentia [may be a cause] for a property,⁹⁸ as 'rationality' is a cause for 'amazement',

Baydawi's explanation of the questions of existence with that given by Jami a century and more later. Jami was more famous as a poet than as a Sufi theologian, but he clearly outlines the beliefs of al-Ash'ari and a Mu'tazilite leader, Abu al-Husayn al-Basri, then those of the Mutakallimun and the philosophers, with a general summary. In each of the main groups existence appears to be regarded as one concept basically, but from different viewpoints and with different applications. One feels that Jami has learned a greater dexterity and brevity in handling these questions than did the earlier writers, Ibn Sina, Tusi, and Baydawi. His commission, however, was only to adjudicate between the doctrines of the various schools and to record them properly in updated form.

⁹⁶ MS gl: I.e., than the accompanying cause [by itself].

⁹⁷ The MS alone adds here, "to its quiddity" ['ala' māhīyatihi].

⁹⁸ Differentia [faṣl] property [khāṣṣah].

and for example, one property [may be a cause] for another property, as 'amazement' is a cause for the 'ability to laugh'.⁹⁹

Now, when an entity is characterized as having [general] existence, this is not by reason of some other attribute subsisting in the entity. Indeed, the subsistence of an attribute in an entity derives from the fact that [the entity] is an existent; but if the fact that the entity is an existent were to be dependently caused by the subsistence of the attribute in it, then argument in a circle would be implicit.

So there is the indication that if [general] existence should be an addition to the quiddity of the Necessary Existent, then the accompanying cause [of the general existence] would be the essence [of the Necessary Existent] itself, not some accompanying entity that would be [merely] a 'characteristic' or a 'differentiator'.

Someone¹⁰⁰ might object that the quiddity in itself would be prevented from being a cause for [general] existence; but the disputant¹⁰¹ would be acting contrary to the requirement of his own intellect, because intellectual intuition has laid down a judgment how necessary it is that whatever is a causal factor for [general] existence should take precedence in [general] existence. Thus, to invalidate the quiddity in itself, as being a recipient of [general] existence, obviously would be invalid. [This is] because any recipient of [general] existence benefits from [general] existence, and so [prior to acquiring general existence] it is prevented from being an existent, because of the impossibility of the prior occurrence of what must still occur.¹⁰²

[In this role the quiddity is] in contrast to the agent of [specific] existence, for this [latter agent] is a donor of [general] existence, and it would be impossible for the donor providing the benefit of [general] existence not to be an existent [Himself]. Otherwise, the door would be closed to any certainty regarding the Creator.

Now, T 44 any recipient of [general] existence would not be a recipient of it while [still] being among the [unrealized] individual quiddities.¹⁰³ Otherwise, the implication would be that the recipient entity would have a separate [general] existence by itself among the individual quiddities, and that its accident, namely [general] existence,

⁹⁹ Rationality [al-nāṭiqīyah]; amazement [al-muta'ajjibīyah]; ability to laugh [al-dāhikīyah].

¹⁰⁰ MS gl: From the side of the philosophers.

¹⁰¹ MS gl: I.e., the Imam [Fakhr al-Dīn al-Rāzī].

¹⁰² The 'occurrence of what must still occur' [ḥuṣūl al-ḥāṣil].

¹⁰³ [Unrealized] individual quiddities [al-a'yān].

would also have [a separate general] existence until their joining together¹⁰⁴ would be as that of an inherent joining with [its] substrate, as the body is in relation L 95 to whiteness. But this [line of reasoning] is invalid.

Rather, [and this question refers to the case of the Necessary Existent,] the being of the quiddity is its [specific] existence, and any consideration of the quiddity as something separate from [specific] existence would be only in the intellect. It is not that the quiddity is disjoined from [specific] existence in the intellect, for its being in the intellect constitutes its mental [specific] existence, just as its being in the external¹⁰⁵ constitutes its external [specific] existence. Rather, it is the business of the intellect to consider the quiddity by itself without MS 48b paying attention to [its] 'existence' or 'non-existence'. However, the lack of consideration for an entity does not constitute [an active] consideration of its nonexistence. So, to characterize the quiddity as having [specific] existence is a transaction of the intellect.

Thus, a quiddity is only a recipient of [specific] existence within the intellect; and it is not possible for [the quiddity] to be an agent of [specific] existence during its [own] [specific] existence within the intellect.¹⁰⁶

As for the parts of a quiddity, such as genus and differentia, [each of them] would constitute a causal factor for the quiddity, but not for [its specific] existence. For this reason it would be unnecessary for them to take precedence in [general] existence over the [specific] existence [of the quiddity].

Baydawi said:

L 95, T 44

4. *The nonexistent is not a certainty externally*

[The fact that the nonexistent is not a certainty externally is a problem] because if the nonexistent should be made equal with the

¹⁰⁴ MS gl: I.e., the recipient that receives [general] existence and the accidental quality that is [general] existence.

¹⁰⁵ [ft al-'ayn] MS gl: I.e., in the external. See also N. Heer's glossary in his translation of Jami's *The Precious Pearl*.

¹⁰⁶ MS gl: Otherwise, it would be implied that one entity would be [both] an agent and a recipient, which is impossible.

excluded, or with something more specific than it, then it would be valid to hold that every nonexistent would be something excluded, and that nothing excluded would be a certainty, and thus the nonexistent would not be a certainty [at all].

But if [the nonexistent] should be more general than [the excluded], then there would not be any complete exclusion. Otherwise, there would remain no difference between the general and the particular, and then [the nonexistent] would be a certainty and would be predicated of whatever is excluded, so that then the excluded would be a certainty. But that is contrary to the hypothesis.

Isfahani says:

L 95, T 44, MS 48b

4. *The nonexistent is not a certainty externally*

Topic 4 is on the fact that the nonexistent is not an external entity. There is no disagreement over the fact that the excluded, namely, what is impossible in its essence, is not an external entity. The only disagreement is over whether the nonexistent possible reality would be an external entity, in the sense that it would have an established being externally but be excluded from existence.

Thus, whoever says that [general] existence is identical with the quiddity cannot then say that the nonexistent possible reality would be an external entity; otherwise, there would be an implicit meeting of the two contradictories, namely, [general] existence and non-existence.

But those who say that existence is an addition to the quiddity differ about this. Some of them make it an impossibility for a nonexistent possible reality to be an external entity having certainty, which is the doctrine of the Mutakallimun among our [Asha'irah] colleagues, of Abu al-Hudhayl and Abu al-Husayn al-Basri of the Mu'tazilah, and [also] of the philosophers.¹⁰⁷ Others of them assert that the nonexistent possible reality is an entity having an established being and external certainty but it is excluded from [general] existence, this being the doctrine of the rest of the Mu'tazilah.

Our author, Baydawi, has argued to the effect that the nonexistent possible reality is not an external entity, saying

¹⁰⁷ MS gl: [I.e., those philosophers] having a link with the Mutakallimun.

a. that if the nonexistent were to be made equal in an absolute sense to whatever is excluded or anything more specific than it, then it would be valid to say

1. that every nonexistent would be excluded, L 96

2. that nothing excluded would be a certainty externally, and therefore

3. not a thing that is nonexistent would be an external certainty, which is the desired logical conclusion.

b. But, if the nonexistent should be something more general in an absolute sense than what is excluded, then the nonexistent would not be [merely] an outright exclusion. [This is] because if it should be an outright exclusion, then there would be no difference between the general and the particular. And if [the nonexistent] should not be an outright exclusion, then it would be a certainty, and it¹⁰⁸ would be predicated of what is excluded. Then our [argument's] statement would be true that everything excluded would be a nonexistent, because the truth of the general [case] is [true] in all its individual specific instances, MS 49a and so every nonexistent would be a certainty, and thus, everything excluded would be a certainty. But this is contrary to the hypothesis.¹⁰⁹

Objection is raised that this requires consideration. If the nonexistent is more general than the excluded, then [only] some of its individual examples would be certainty,¹¹⁰ and our statement would not be true that every nonexistent would be a certainty. So the foregoing syllogism would not be productive because its major premise then would be a particular.

Response is made to this [objection]¹¹¹ that if the nonexistent were not a certainty, then the nonexistent possible reality would not be a certainty, since the nonexistent possible reality is absolutely more particular than the nonexistent, because what is true of the nonexistent applies to all individual examples of the nonexistent possible reality and to all individual examples of the excluded, in an imperative application of the truth of what is absolutely general to

¹⁰⁸ MS gl: I.e., the nonexistent.

¹⁰⁹ MS gl: But if it should be false that the nonexistent is more general than the excluded, then one of the two former alternatives would be true, and the desired conclusion would be implied.

¹¹⁰ MS gl: And some would not be certainty, namely, the excluded.

¹¹¹ MS gl: This is by way of counterobjection.

all individual examples of the particular. And if there is no certainty for what is more general absolutely, then there would be no certainty for what is more particular absolutely.

Some one might object that if the nonexistent should be more general than the excluded then there would be no requirement for it to be absolutely a certainty; rather, a portion of its individual examples would be certainty, namely the nonexistent possible reality, and some would not be certainty, namely, the excluded.

If it should be objected that, if¹¹² it¹¹³ were not a certainty, then it would be an outright exclusion, and no difference would remain between the general, namely, the nonexistent, and the particular, namely, the excluded, then the response¹¹⁴ to this [objection] would be that we do not grant [the implication] that, if [the nonexistent] were not a certainty then it would be an outright exclusion. Rather, it would be more general than an outright exclusion. The difference between it and the excluded is that it is admissible to affirm non-existence of the nonexistent possible reality, but it is not admissible to affirm exclusion of the nonexistent possible reality.

In truth, the nonexistent possible reality is not a certainty externally. Whoever disputes this is resisting what his intellect requires, for the intellect intuitively judges that the nonexistent has no external certainty. However, to argue that the nonexistent is not an external entity is impossible to pursue by way of demonstrative proof.

Instead, the convincing of an opponent¹¹⁵ is possible only by way of dialectic debate. In this, those who say that the nonexistent is an external entity have posited the certainty of a power which is a causally effective attribute. But between the certainty of the power and the statement that the nonexistent possible reality is an external certainty there is a contradiction. MS 49b That is because, on the assumption that the nonexistent possible reality is an external entity, then the power would be excluded; since if [the power] were a certainty, then its efficacy would be either

a. in the essence, or b. in the [general] existence, or c. in the characterization of the essence as having [general] existence. But these three alternatives are invalid.

¹¹² An L 96 gloss indicates that this is implied by the objection.

¹¹³ MS gl: i.e., the nonexistent.

¹¹⁴ The MS alone adds: "to this" [ujīb 'anhu].

¹¹⁵ The MS here uses, "li-izām"; L, T and MS Garrett 989Ha use, "ilzām."

(a.) The first [is invalid] because the essence is a certainty¹¹⁶ having no need for an effective cause, according to [Baydawi's opponents].

(b.) The second [is invalid] because [general] existence, according to them, is an attribute-state, T 45 and an attribute-state is not an object of power.

(c.) The third [is invalid] because the characterization of the essence as having [general] existence is a mental transaction having no external established certainty. If it should be made an external certainty, then it would be characterized as having certainty, and the characterization of it as having certainty would also then become a certainty; so, argument in an infinite series would be implied, which is impossible.

But if the characterization [of the essence as having general existence] is not an external certainty, then the power would have no efficacy over it. On the assumption¹¹⁷ that argument in an infinite series were admissible in matters having [theoretical] certainty, then the characterization would not be existent externally; otherwise, there would be an implicit argument in an infinite series for things existent externally, which would be impossible. And if the characterization is not existent externally, then the power has no efficacy over it.

Therefore, assuming that the nonexistent possible reality is an external entity, it would be established that then the power would be excluded. Thus, the contradiction would be established between the certainty of the power and the certainty that the nonexistent possible reality would be an external entity. And [the disputants'] problem is left circling between exclusion of the power and exclusion of the nonexistent possible reality as an external entity.

Baydawi said:

L 97, T 45

Argument of the Mu'tazilah on the nonexistent

The argument of the Mu'tazilah is [as follows]:

a. The nonexistent is something [conceptually] distinguishable because of the fact that it is a known thing, an object of power, and

¹¹⁶ An MS gloss repeats this sentence, adding here "[even] in nonexistence" [fi al-'adam].

¹¹⁷ MS gl: That is, [the disputants] said that this infinite series pertains to matters of certainty that are excluded from existence, and [so] argument in an infinite series would be admissible in these cases.

an object of will, some part of it more than another; and everything [conceptually] distinguishable is a certainty, so the nonexistent would be a certainty.

b. The impossibility of [the nonexistent] would be its exclusion, because the characteristic of the impossible is exclusion; but [the fact of] possibility is a certainty, so the nonexistent that is qualified by [the fact of possibility] is a certainty.

In reply to this [argument], the first [reason] is nullified by impossible things, by imaginary things, by composite things, and by [general] existence itself, and the second [reason] is nullified by the fact that possibility and impossibility are both matters of the intellect, as we will explain.

Isfahani says:

L 97, T 45, MS 49b

Argument of the Mu'tazilah on the nonexistent

The Mu'tazilah argue that the nonexistent may be a certainty for two reasons:

a. The first [reason] is that the nonexistent is something distinguishable, and everything that is distinguishable is a certainty; therefore the nonexistent is a certainty. The nonexistent is distinguishable on three points:

1. The first [point] is that the nonexistent is a known thing. The fact that the sun rises on the morrow is a known thing, although now it is a nonexistent [thing]. Every known thing is something distinguishable;¹¹⁸ for everyone distinguishes between movement that is controlled by some power and movement not controlled by any power, and [everyone] distinguishes between the sun's appearance at its place of rising and at its place of setting.

2. The second [point] is that the nonexistent is an object of power.¹¹⁹ Movement whether to the right or to the left¹²⁰ is an object

¹¹⁸ MS gl: I.e., it is [distinguishable] from what is not a known thing; otherwise, it would be impossible to characterize one of them as having knowability and the other as lacking it.

¹¹⁹ The MS here omits "for us" in the phrase [maqdūr lanā], the first use of the phrase having a general reference; but the MS adds "for us" in the second occurrence of the phrase, which becomes a particular reference. L and T have "for us" in both places, while MS Garrett 989Ha omits it in both.

¹²⁰ L and T have the forms "yumnatān" and "yusratan", while the MS has "yamīnatān" and "yasīratān."

of power for us, although [the movement] is [still] nonexistent. Now, every object of power is something distinguishable. It is valid L 98 to say that movement whether to the right or to the left is an object of power for us, but creation of the heavens MS 50a and the earth is not an object of power for us, and that this distinction is in operation before these things enter into existence. So, if these nonexistent [entities] had not been distinguishable from each other before their existence, then it could not be said [now] that it is valid for us to perform such an action or that it is not valid for us to perform such an action.

3. The third [point in which the nonexistent is distinguishable] is that the nonexistent may be something desirable. One of us may have a desire for something such as meeting a friend, or may have a dislike for something else such as meeting an enemy. If what is desired and what is disliked were both reckoned as nonexistents, and if there were to be no distinction of the desirable from the disliked before their existence, then it would be impossible for one of the two to be a desirable object and the other to be a disliked object. So it would be a certainty that the nonexistent possible reality would be something distinguishable.

As for the fact that everything [conceptually] distinguishable has certainty, that is so because distinguishability is an attribute having certainty for whatever is [conceptually] distinct, and the certainty of an attribute for what is characterized derives from the certainty of what is characterized.

b. The second reason [of the Mu'tazilah]¹²¹ is that the impossibility [of a nonexistent] would constitute [its] exclusion, since the characteristic of what is impossible is exclusion. And if [the fact of] impossibility [in itself] should be a certainty, then whatever is impossible and is so characterized would [also] be a certainty, because the certainty of an attribute derives from the certainty of what is characterized. But now the thing that is impossible is not a certainty, so the [fact of its] impossibility will not be a certainty.

If impossibility should not be a certainty, then possibility would be a certainty, since if one of two contradictories should not be a certainty, then the other would be a certainty. And if the possibility should be a certainty, then the nonexistent possible reality, described

¹²¹ MS gl: I.e., that the nonexistent has certainty.

as having possibility, would be a certainty. So, it is established that the nonexistent possible reality would be a certainty.

a.-a. The reply to the first [Mu'tazilah reason] is a total refutation. A summary statement of it is that if the argument given were valid, then the implication would be that impossibilities¹²² and things imaginary,—as a sea of quicksilver and a mountain of ruby, as well as composite things¹²³ made up from a joining together of parts and their mutual fitting in a specific way,¹²⁴—would be external certainties; but according to [the Mu'tazilah] it is not so. Likewise it would be implied that [general] existence would be an external certainty,¹²⁵ but according to [the Mu'tazilah] it is not so.

Nevertheless we [Isfahani] say that the implication is there¹²⁶ because these things are distinguishable, and everything distinguishable is an external certainty, so these things MS 50b are external certainties.

A further¹²⁷ reply¹²⁸ to the first reason about the impossibility in a detailed way is that objection [against it] could be raised [as follows]:

1. If what is meant by distinguishability is a distinction in the mind, then the minor premise¹²⁹ is granted, but the major premise¹³⁰ is ruled out, for there is no implication that if something is distinct in the mind then it would be a certainty externally. Otherwise, the implication would be that imaginary, impossible, and composite things would be external certainties; and that is not so, by consensus. L 99

2. If what is meant is a distinction externally then the major premise is granted, but the minor premise is ruled out; for the fact that the nonexistent may be a known thing, potential, and desirable does not require it to be something externally distinguishable.

b.-a. The response to the second [Mu'tazilah main] reason is that possibility and impossibility are [both] intellectual considerations, not

¹²² MS gl: such as the meeting of two contradictories, for example.

¹²³ MS gl: As an individual person (shakhs) having ten heads.

¹²⁴ MS gl: [i.e.], not from the very parts themselves, and such by consensus may not be conceived as being in the state of nonexistence. Perhaps what is intended by the composites is what the intellect and the imagination compose, as a man with two heads and a sea of quicksilver.

¹²⁵ MS gl: As for existence, it is because it is one of the attribute-states [aḥwāl], according to them, and the attribute-states are not certainties.

¹²⁶ MS gl: that these things are certainties.

¹²⁷ T alone inserts the clarifying word "further" [ayḍan].

¹²⁸ MS gl: This reply is by the commentator, not the author.

¹²⁹ MS gl: Namely, his statement that the nonexistent is distinguishable.

¹³⁰ MS gl: Namely, his statement that everything distinguishable is a certainty.

external matters, so the fact that one of the two is excluded does not imply that the other of them would be an external certainty, as we will explain.

Baydawi said:

L 99, T 45

5. *The attribute-state is to be excluded*

The majority [of the Mutakallimun] have agreed that [the attribute-state] is [to be] excluded [from reality].

Those who spoke in favor of [the attribute-state] were Abu Bakr [al-Baqillani] our [Asha'irah] colleagues, Abu Hashim [al-Jubba'i] the Mu'tazilah and Imam al-Haramayn [al-Juwayni] at first. their argument for it [had two points]:

a. [General] existence is a descriptive quality common [to all existents].

1. It is not [itself] an existent; otherwise, it then would be equal to everything else in existence, and its [own] existence would be an addition, T 46 and an infinite series argument would be implied;

2. nor is it a nonexistent, since it may not be characterized by what negates it.

b. Also, just as blackness shares with whiteness in having color but differs from it in being black, [they argued that]

1. if [both] these entities should be existents then one of them would subsist in the other, otherwise, each would be independent of the other and a single reality could not be assembled from the two of them, and if that were the case then it would imply the subsistence of an attribute in an attribute, which is impossible on grounds we shall set forth;¹³¹ and

2. if [both] entities should be nonexistents, or one of them, then it would imply that an existent was composed from a non-existent, which is obviously impossible.

a.-a. Response to the first point [supporting the attribute-state] is made

1. that [general] existence [itself] is an existent entity,
2. that its [own general] existence is its essence, and

¹³¹ See below, Book 1, Section 2, Chapter 1, Topic 3.

3. that its distinction from all other existent entities is by negative qualification, so the argument is not an infinite series.

b.-a. [Response] to the second point is made

1. that coloration and blackness are two existent entities [both] subsisting in a body, except that [either]

a) the subsistence of one of the two is dependent upon the subsistence of the other, or that

b) the subsistence of one of the two is in a body and the other subsists in [the first entity]. Now, [either] the impossibility [of this kind of subsistence itself] is an impossibility, or the composition [of it] is in the intellect and is not external. It requires consideration.

Isfahani says:

L 99, T 45, MS 50b

5. *The attribute-state is to be excluded*

After [Baydawi] had finished with the explanation that the non-existent possible reality is not an external certainty, he began [the discussion on] the exclusion of the attribute-state. The majority¹³² have agreed upon the exclusion [of the attribute-state], and you have acquired an understanding of its meaning.¹³³

Affirming the 'attribute-state' as a certainty were Qadi Abu Bakr [al-Baqillani] of our group,¹³⁴ Abu Hashim [al-Jubba'i] and his followers among the Mu'tazilah, and¹³⁵ Imam al-Haramayn [al-Juwayni] at first.¹³⁶ They affirmed as certain that there was an intermediary between the existent and the nonexistent, and they called it an 'attribute-state'.

In our [Isfahani's] view,¹³⁷ intuitive reason judges that whatever the intellect makes reference to will either have a reality of some sort or it will not. The former [option] would be an existent while the latter [option] would be a nonexistent, and L 100 there would

¹³² MS gl: I.e., the majority of the Mutakallimun.

¹³³ L gl: (repeating Baydawi's definition from L 75:18-19): namely, an attribute not existent or nonexistent in itself, subsisting in an existent.

¹³⁴ MS gl: I.e., of the Asha'irah.

¹³⁵ MS gl: of our group.

¹³⁶ MS gl: Then he disassociated himself from affirming the certainty of the attribute-state.

¹³⁷ MS gl: I.e., the dispute [nizā'] would be semantic. N.b.: This passage is taken nearly verbatim from F.D. Razi's *Muhassal* p. 61, Cairo 1323 A.H.

be no intermediary between the two, unless of course, existence and nonexistence should be interpreted otherwise than what we have set forth. In that case the intermediary might be certified [conceptually], and the investigation would then become merely semantic.

Those affirming the certainty of the attribute-state have presented an argument with two points.

a. The first [point of their argument supporting the attribute-state] is that [general] existence is a descriptive quality¹³⁸ common to all existents. But there is no doubt that the quiddities are differentiated from one another, the factor wherein there is the commonality, here I mean [general] existence,¹³⁹ being something other than that wherein there is the distinction. So the [general] existence of external entities is something different from their quiddities.

1. [In their argument they say that general] existence [itself] is not an existent entity, because, if it should be an existent then it would be the same as everything else in existence, since [general] existence is a descriptive quality common to all existents. MS 51a But there is no doubt that [general] existence differs from a quiddity¹⁴⁰ in some respect or other,¹⁴¹ the factor wherein there is the commonality being different from that in which there is the distinction. Thus, the [general] existence common to both [general] existence and the existent quiddities would be different on account of the specific property of that [general] existence's quiddity in which there is the distinguishing factor. So, the [general] existence would have another [distinct general] existence, and its [other general] existence would be added to its quiddity. [But here], argument in a infinite series is implicit.¹⁴²

2. [And they also say that general existence itself] is not a nonexistent entity, because nonexistence excludes [general] existence,

¹³⁸ Baydawi uses the term [ṣifah] in this formula, while Isfahani prefers to use [waṣf] in the same position and meaning.

¹³⁹ MS gl: I.e., existence in an absolute sense.

¹⁴⁰ The MS and MS Garrett 989Ha have the plural, "quiddities."

¹⁴¹ The two MS authorities used have [bi-wajhin]; L & T add "or other" [bi-wajhin mā].

¹⁴² L gl 5: [Isfahani's] statement that its [general] existence is added to its quiddity and that an infinite series is implicit refers to the fact that we may apply this reasoning to the [other general] existence of the [general] existence and say that it also is [the case of] an existent having [general] existence added to it. [From al-Sayyid al-Sharif Ali al-Jurjani's gloss on Isfahani's commentary.]

and an external entity may not be described by something that excludes it. Thus, [general] existence would be neither an existent nor a nonexistent [according to them], but it would be a descriptive quality of an existent. So, [general] existence a) would be a descriptive quality subsisting in an existent, and b) it would be neither an existent nor a nonexistent; therefore, it would be an 'attribute-state'.

b. The second [point of those who support the certainty of the attribute-state]¹⁴³ is that blackness has commonality with whiteness in having color quality, the commonality being not in the word but in the meaning, but [the blackness] differs from [the whiteness] through its [own] differentia specific to it, namely, what is referred to as 'blackness'. So, if both the color quality as genus and [with it] blackness as the specific difference are in [general] existence, then one of the two must be subsisting in the other.

[This is so] because

1. if one should not subsist in the other then each would be independent of the other, and if each should be independent of the other, then it would be impossible for one reality to be assembled from the two of them.¹⁴⁴ And

2. if one of them should subsist in the other, then it would imply the subsistence of an accident in an accident.¹⁴⁵ And

3. if the genus and the differentia should not exist, or if one of them should not exist, then the implication would be that an existent¹⁴⁶ was composed from a nonexistent,¹⁴⁷ which is obviously impossible.¹⁴⁸

a.-a. The reply to the first [reason supporting the certainty of the attribute-state] is that [general] existence [itself] is indeed an existent.

¹⁴³ L gl: [Namely, that] blackness is something compounded from color quality which is [both] its genus and the differentia by which it is distinguished. [Nearly verbatim quote from al-Ijī's *Mawāḍiʿ*, p. 58; Cairo, 1983.]

¹⁴⁴ MS gl: Because of the mutual need of the parts of a composite for one another.

¹⁴⁵ MS gl: If one or both of them were a substance [jawhar] then it would imply that the blackness which is an accident was composed from a substance, and that is impossible.

¹⁴⁶ MS gl: namely, the blackness.

¹⁴⁷ MS gl: Namely, the color quality and the blackness.

¹⁴⁸ MS gl: If all three alternatives were invalid, and the case was that the color quality and the blackness were each a second attribute of the existing blackness, then each of them would be subsisting in an existent, but would be neither an existent nor a nonexistent; each would be an attribute-state.

[Baydawi's] statement [quoting their argument] is that if [general] existence should be an existent, then it would be equal to the other quiddities in [general] existence, but it would differ from them in their specific properties. [General] existence then would possess another [general] existence and its [other general] existence would be an addition to its quiddity.

But we [Isfahani] hold that [general] existence is distinguished from all the other existents by negative qualification, which is that the [general] existence of [general] existence is not as an accident to a quiddity; but rather, the [general] existence¹⁴⁹ of the [general] existence¹⁵⁰ L 101 is its own self, so, no argument in an infinite series would be implicit.

Someone might object that [general] existence is not an external existent, for an existent is an external entity that has [general] existence, and that entity would be either a. [general] existence itself, or b. something else. But both of these [alternatives] are impossible.

(a.) The first [alternative is impossible] because of the impossibility of certifying a thing by itself [as a certainty], MS 51b because the certification of one thing by [another] thing is a relationship that

¹⁴⁹ L gl: Regarding his [Isfahani's] statement, "... rather, the [general] existence of [general] existence is its own self": a clarification of this point is that the [specific] existence [of an entity] is [its] 'realization', and any meaning other than 'realization', as far as its being something realizable, would require 'realization'. So what is identical to a 'realization', which in fact has already been realized, would not require something else, as it is fully realized in its own self. And just as every light source is either a) different from the light, and as far as its being a light source, requires another light, or b) it is identical with light, and as far as its being a light source, does not require another light, for it is a light source in its own self.

But as for what the commentator said about an "existent having existence",—Oh! here the language staggers with its speculation in the direction of words and semantics, although indeed, such [an idea] would be admissible also in a case of intellectual existence,—his statement is invalid. We prefer [to say] that [specific] existence is an existent in the mind. If he should reply that what is a subsistent in the mind is [but] one of its particulars, then why would it not be admissible for something similar to it to be consistent with the external? [From the gloss of al-Sayyid al-Sharif Ali al-Jurjani upon Isfahani's commentary.]

¹⁵⁰ L gl: And you know that this reason is invalid according to the school of al-Ash'ari, for the [general] existence of quiddities in his view is not as being accidental to them; nor is it valid according to the school of the philosophers, for the [general] existence of Him the Most High in their view is identical with His essence, so this negative qualification may not be used validly for making distinctions, according to both the schools. [From the Commentary on Baydawi's *Tawali' al-Anwar* by 'Abd Allah ibn Muhammad al-Farghani al-'Ibri, d. 1342.]

requires that the two things that are [so] related should be different from one another.¹⁵¹

(b.) The second [alternative is impossible] because of the impossibility for [general] existence to be anything other than it is.

Rather, the response [to this objection] is that [general] existence would not [even] be challenged by this division [i.e., the attribute-state that is neither an existent nor a nonexistent]. And such is our stated position, that [general] existence is either something existent or something nonexistent, because it is impossible to divide something into both what fits its own description and into what excludes it. As examples, it is not valid to say that blackness would be either black or white, or that a cannon shot [ḍarb] would be either a cannon shot or it would not be a cannon shot.¹⁵²

But, if it should be granted that [general] existence would accept this [attribute-state] division, then we would prefer [to say] that existence is something existent in the mind; thus, it would not subsist in an external existent, and thus, it would not be an attribute-state [externally].

b.-a. The reply to the second [reason] is that color quality and blackness are both existents subsisting in the body, but the subsistence of one of the two in the body depends upon the subsistence of the other in [the body also]. And we do not grant the alternative that if one of the two [existents] should not subsist in the other [existent], then each of them would be independent of the other. T 47 The fact is, if one of them should not subsist in the other and the subsistence of one of the two in the body depended upon the subsistence of the other in [the body also], then one of the two would have need for the other. Thus, neither of the two would be

¹⁵¹ MS gl: This requires discussion, for the difference, although a mental consideration, is adequate for the intellectual comprehension [ta'āqqul] of the relationship. So we prefer [to say] that [general?] existence [itself] is an existent, [having] a [general] existence that is identical to its own essence but different from it logically considered, and there is no impossibility in that. [From Ibn al-Mutahhar al-Hilli's commentary on Nasir al-Din al-Tusi's *Tajrid al-'Aqa'id*.]

¹⁵² Given the Mamluk experimentation with gunpowder and guns in 14th century Egypt, it is probable that this is a precise translation of Isfahani's reference. [Cf. D. Ayalon's article "Bārūd, pt. iii: Mamluks" in *En-I-2*, v. 1, p. 1058.]

Otherwise, it is the more prosaic translation: "...or that the noise of a blow would be either [a case of] something having been struck a blow or not having been struck a blow."

independent of the other, nor would one of them be subsisting in the body while the other subsisted in the one subsisting in the body.

[Baydawi's] statement [of their argument is] that then there would be implied the subsistence of an accident in an accident. We [Isfahani] would say that [Baydawi's statement] is granted, and then the case would be that the impossibility of the subsistence of an accident in an accident would [itself] be an impossibility.

Or, we [Isfahani] would say, that the composition between the color quality and the blackness would be in the intellect, and that each of these two [qualities] would be something existent¹⁵³ in the intellect, not externally; so, they would not be two entities subsisting in a [single] existent externally.

However, the fact is that genus, differentia and species all together constitute an external existent having a single [specific?] existence, for the act of setting up the genus and differentia is in itself to set up the species; thus, there would be no attribute-state.

This bears consideration, for if the composition should be within the intellect, the implication is that it would be external also, since what is composed of genus and differentia would be an external composite; otherwise, there is the implication that there would be two forms within the intellect both corresponding to one simple external entity.

Some one might object that a composite of genus and differentia is required to be an external composite only if the genus and the differentia are both taken from external particulars, as a being that is living [and] rational.¹⁵⁴ MS 52a But if genus and differentia are not both taken L 102 from external particulars, then the composite of genus and differentia is not required to be an external composite. As [an example of this, take] the genus of the intellect and its differentia, for the quiddity of the intellect is a composite in the mind, but it is a simple entity externally, and there is no impossibility for two forms to be within the intellect corresponding to one simple entity [externally].

Let no one say that [the external entity's] correspondence to one of the two [forms] would exclude its correspondence to the other

¹⁵³ The MS and T have [mawjūd]; L has [mawjūdah].

¹⁵⁴ T 47:9 inserts "and" [or, "but"] [wa-] between "a living being" and "the rational"; the MS, MS Garrett 989Ha and L do not.

[also]. We hold that such [an exclusion] would be implied only if each one of the two [forms individually] were to be made correspondent to it. But if the combination [of the two forms] were to be made correspondent to [the external entity], then there would be no [such implication].¹⁵⁵

¹⁵⁵ Ibn Sina, in his *Isharat*, in the early passages in vol. 3 on 'metaphysics', touches indirectly on 'nonexistence' while discussing other topics. In this present translation of Book 1, Chapter 3, Baydawi's and Isfahani's review of the topics "Existence and Nonexistence", along with their argument that the "attribute-state" is to be excluded from reality, has the advantage of F.D. Razi's previous work in his *Compendium of Thought Ancient and Modern* where this material is found on pages 52–64 (Cairo, 1332 reprint ed.). The main topics are covered by our two authors, but their treatment and their insights do not merely repeat Razi's summaries.

CHAPTER 3: QUIDDITY¹1. *On the quiddity itself*

Every external entity has a real nature [i.e., a quiddity], by which it is what it is, and this [quiddity] is different from everything else.

a. [For example], human nature in itself [i.e., as a quiddity] is neither singular nor plural, though inevitably it involves both. It is called [both] the [human quiddity as] 'absolute', and the 'quiddity not conditioned by anything'.

b. Then, if [the quiddity] is taken together with its individuations and properties, it is called [both] the [quiddity as] 'external blend' [that is, an absolute blended with particulars], and the 'quiddity conditioned by something'.

This ['external blend'] is existent externally, and [with it] likewise the former [type is existent externally] because [the former] is now a part of [the latter].

c. But if [the quiddity] is taken on the condition of being devoid of [the particulars], then it is called [both] the [quiddity as] 'abstraction', and the 'quiddity conditioned by nothingness'. That 'abstraction'² has being only in the intellect, even though its having being in [the intellect] constitutes a property, nevertheless, the intended meaning is that the abstraction is from external properties.

Therefore, the [quiddity as] 'abstraction' and the [quiddity as] 'external blend' differ from one another as two particulars differ under something more general, that is, the [quiddity as] 'absolute'. Herein appears the weakness of what Plato had asserted, namely, that for every species there would be an individualization that was [both] an abstraction and an external existent,³ since it would be

¹ [māhiyah].

² T 47:18, alone of sources used, adds here "abstraction" [al-mujarrad].

³ For Baydawi an 'abstraction' could not be an 'external existent' and so, Plato's presentation was too weak to be employed. Aristotle's thorough restatement of the doctrine of 'idea/forms' seems to have made Plato's presentation comparatively moot and irrelevant to the philosophers writing in Arabic. Perhaps for this reason

the part having commonality with the [quiddities as] ‘blends’ that are external existents.

Isfahani says:

L 102, T 47, MS 52a

CHAPTER 3: QUIDDITY

When [Baydawi] had finished with Chapter 2 on Existence and Non-existence he began on Chapter 3 on the Quiddity. In it he set forth three topics:

1. On the quiddity itself, 2. The classes of quiddity, and 3. Individuation.

1. *On the quiddity itself*

Topic 1 is on the quiddity itself, with an explanation of the difference [between the quiddity] and anything else, [including] its properties and otherwise.⁴

[The term] ‘quiddity’ is derived from an interrogative exclamation, and provides the answer to the question, “What is it?” It is considered to be related to the interrogative only because it occurs as the answer to it. For example, if a question should be raised as to what Zayd is, then the way this question would be answered is, “He is a rational living being”, so “a rational living being” is the quiddity of Zayd.

The [term] ‘quiddity’ is applied usually to an intelligent entity, like that comprehended in the [term] ‘an intelligent human being’. [The terms] ‘essence’ and ‘real nature’ are applied to the quiddity usually in the context of [general] existence.⁵ The ‘quiddity’, ‘essence’ and

no mention could be found in Ibn Sina’s *Isharat* or in F.D. Razi’s *Muhassal* of this discrepancy in Plato’s exposition.

⁴ MS gl: The purpose of this chapter is to explain the distinction of the quiddity [māhīyah] from the accidental qualities that are either concomitant or separable, and to explain in what respect [the quiddity] exists externally or does not exist externally.

⁵ L 102 and MS 52a gloss: I.e., external [general] existence, for that is what comes to mind at first thought when it is used without modification; for one does not speak then of the ‘essence’ and the ‘real nature’ of fabulous things, but rather, the ‘quiddity’ of them. This is according to the usual way of speaking. Sometimes these three terms are used without regard to any difference between them. [Source

'real nature' [all]⁶ belong among the secondary intelligibles. L 103 They are accidents linked to the primary intelligibles, because they are within the intellect and nothing exists among the individual [specific] quiddities⁷ that corresponds to them. For example, the intelligible notion of a 'man' or an 'animal' is referred to as a [general] quiddity, although there is no such thing as a [general] quiddity among the individual [specific] quiddities; but among the individual [specific] quiddities there is [the individual specific quiddity of] 'man' or 'horse' or something else. The case is likewise with the 'essence' and the 'real nature'.

If you have understood this, we can proceed to say that for every thing that can be posited, whether it be a particular or a universal, a species or a genus, or anything else, the real nature [i.e., 'quiddity'] of that thing, by means of that same reality, is constituted that thing. This [quiddity] is distinct from everything else that may be one of [the thing's] accidental properties, whether those accidents are inseparably concomitant or separable. MS 52b

For example, human nature, as human nature in itself, is different from all of the considerations that may be made accidental to it, be they inseparably concomitant⁸ or separable, such as existence and nonexistence, singularity and plurality, universality and particularity, generality and specificity, and on to other intellectual considerations.⁹ For 'man' [the notion] in itself is neither one nor many, neither universal nor particular, neither general nor specific; that is, not a one of these [considerations] enters into the notion [of 'man'], even though [the notion] is inevitably involved with them. Now, if any one of these considerations should enter into the notion [of man], then [the term] 'man' would not be true of anything that would preclude [that consideration]. For example, if 'singularity'

of this gloss is coded *Hashiyat Tajrid*: presumably meaning the gloss [hashiyah] or commentary [sharh] of Ibn al-Mutahhar al-Hilli on Nasir al-Din Tusi's *Tajrid*.)

⁶ [al-māhīyah] the 'quiddity'; [al-dhāt] the 'essence'; [al-ḥaqīqah] the 'real nature'.

⁷ [al-a'yān] the individual specific quiddities; also translated as 'concrete [i.e., external] essences', 'concrete individuals' (Goichon, *Lexique*, #474), and closely related to, if not to be identified with, the Platonic 'idea/forms'.

⁸ MS gl: i.e., they are not separable from it at all, for they exist only as qualities of it, as being numerically even is inseparable from the quiddity of [the number] four.

⁹ The MS and MS Garrett 989Ha omit here, 'intellectual' ['aqlīyah].

should enter into the notion [of man], then [the term] 'man' would not be true of 'man' as being plural.

Thus, the quiddity [of an entity] may be a given thing, but together with any one of these considerations it would be something else, while not one of these considerations would be true of it unless something else should be added. Regarding the fact that [the quiddity] has being as a 'quiddity', that [fact comes about] through [the entity's] own 'essence'.¹⁰ 'Man' [the notion, as an individual specific quiddity] is 'man' through its own 'essence', not by anything else. T 48 added to it. And 'man' [the notion] would be [in the] singular, not through its essence, but rather, when the attribute of being 'singular' is added to [the quiddity].

'Man' [the notion] in itself—having no side reference to anything that may or may not accompany it, but rather standing in direct reference to its notion in itself—is called [both] the [quiddity as] 'absolute', and the 'quiddity not conditioned by anything'.¹¹ Then, if 'man' [the notion] is taken together with [its] individualizations and properties, it is called [both] the [quiddity as] 'external blend', and the 'quiddity conditioned by something'. [And that 'external blend'] is existent externally. It is likewise with the former, that is, the [quiddity as] 'absolute' is existent externally, because it is part of that [quiddity as] 'external blend' that is existent externally, and part of something existent externally is itself existent externally. But if 'man' [the notion, as a [specific] quiddity] is taken on the condition of being without individualizations and properties, it is called [both] the [quiddity as] 'abstraction', and the 'quiddity conditioned by nothingness'.¹²

That ['abstraction'] is not existent L 104 externally, because 'external existence' is also one of the properties, and the presupposition is that [the quiddity] has been abstracted from [the properties]. Rather, [the quiddity] has being only in the intellect, and even though its 'having being in the intellect' is a property, nevertheless what is meant by its abstraction is [that the abstraction is] from

¹⁰ MS gl: [However], this [statement] does not produce the notion of quiddity, as here there is an additional entity [i.e., man] that is mentally made accidental to it. Rather, [the author] is referring to what this notion [i.e., of quiddity] may be truly applied, as he indicated in giving his example.

¹¹ [al-māhīyah lā bi-sharṭ shay'].

¹² [al-māhīyah bi-sharṭ la-shay'].

external properties. Thus, the 'abstraction' and the 'external blend' differ from one another as two particulars differ that are classified under something more general which is the 'absolute'. Now, in what has been said [here] to the effect that an 'abstraction' does not have external being, but rather, is only in the intellect, MS 53a and that [the 'abstraction'] is differentiated from the 'external blend', the weakness has become apparent of what Plato asserted to the effect that for every species there is an individualization,¹³ one that is an 'abstraction', having external reality, and continuing perpetually from eternity past to eternity future. [Plato's argument is as follows:]

a. Because [the individualization] would be the part having a commonality among the external blends, it therefore would be existent externally since it would be part of an external blend existent externally, [that is], a part of something existent externally [and which is] itself existent externally.¹⁴

b. And [the individualization] would be abstracted from the [other] individualizations, because it would have been empowered as a commonality among the external blends.

c. But this part having the commonality among the external blends would be prevented from being [itself] an external blend, because the external blend would be enclosed by individualizations that would prevent [any external] commonality, and [so the part having the commonality] would not become corrupt because of the corruption of the external blends.

However, the weakness of [Plato's assertion] becomes apparent in his presentation, because the 'abstraction' [as taken out] from the external individualizations and properties, would not exist externally [by itself], and as being differentiated from the 'external blend', thus would not be part of it.^{15,16}

¹³ MS gl.: This [refers to] what is called the Platonic 'ideas' [or, 'forms'] [al-muthul al-Aflāṭūniyah].

¹⁴ The MS alone of sources used ends the phrase "existent in the external" with the noun instead of a relative pronoun.

¹⁵ MS 53a gl: On this there is more to be said, for we would not grant it. Indeed, ceiling and walls are differentiated from the house, although they are both parts of it.

¹⁶ Following is a gloss [no. 1.] which probably is quoted from an indefinite degree of indirectness, and that has been corrupted and expanded to present a theological view. Its claim, that Plato called for the existence of "two individualizations" for each idea/form in reality, is contradicted by [no. 2], a gloss at L 104, the source of which is indistinctly coded, but perhaps is a comment by Jurjani on Ijī's

Baydawi said:

L 104, T 48

2. *The classes of quiddity*

a. A quiddity is either

1. a simple entity,
2. an externally composite entity, that is, assembled from parts externally differentiated, as 'man' [the notion], composed of body and spirit, and a 'triangle' [the notion], composed of lines; or,
3. an intellectually [composite entity], its parts not externally differentiated, as transcendent entities, if we posit substance as a genus for them, and as the black that is a composite of color quality and [the differentia] blackness.

b. The parts [of a quiddity] are either

1. mutually interpenetrating within one another, as the genera and the differences, or
2. mutually differentiated but resembling one another, as the units [in sets] of ten, or

Mawaqif, and by [no. 3], Ijī's plain statement, quoted from his *Mawaqif*, p. 60, Cairo, Maktabat al-Mutanabbi, [1983].

GLOSS [no. 1]: MS 53a "Plato asserted that everything in nature must have a species capable of existence in two individualizations, one of them material and corruptible, and the other abstracted [as quiddity] and enduring forever. Thus, he posited man in the human species; for example, one [individualization] being sensate and corruptible, and the other abstract and enduring. [This is so, he argues], because a) of 'man' [the notion], part of it is the sensate, and part of an existent is an existent; b) but the quiddity of man must be an abstraction, since it has commonality among sensate individualizations, c) and the entity having such commonality must be an abstraction, as it would be impossible for an external entity having commonality due to its being enclosed in the accidental qualities that prevent it, d) and [the quiddity of man] does not become corrupt from the corruption of the external entities [about it], because the corruptibility of the specific is not required by the corruptibility of the general. Therefore, it is established that 'man' is an abstracted [quiddity] that endures from eternity past to eternity future." [From Jurjani's full commentary on Ijī's *Mawaqif*.]

GLOSS [no. 2]: Plato took the position that in every natural species there would be an individualized example that was an 'abstraction' existing in external reality and that was eternal and everlasting, [in such a way that] it established in the human species an abstracted human individualization, and likewise in [all] the other possible species. These individualizations are called "the Platonic idea/forms."

QUOTE [no. 3]: Plato said, "In every species there will be an individualization that is an abstraction, that is eternal and everlasting, and that is receptive to those that are mutually receptive."

3. mutually differentiated from one another intellectually, as 'primal matter' and 'form', or

4. [mutually differentiated from one another] externally, as the parts of a [human] body.

Furthermore, [the parts of a quiddity] are either

5. completely existential and real, as in the foregoing examples, or

6. adjunctively so, as are the parts [in a composite] of an immediate contiguity, or as

7. an intermixture of these two types, as in the throne of a king, or

8. some are existential and some are nonexistential, as are the parts of the first [class of quiddity].

Isfahani says:

L 104, T 47, MS 53a

2. *The classes of quiddity*

a. A quiddity is either

1. a simple entity, having no divisible part,¹⁷ or it is

2. a composite entity, having parts; a composite being either

a) an externally composite entity, that is, one assembled from externally differentiated parts wherein every L 105 single part has its own independent existence, not the existence of any other, 1) as 'man' [the notion] that is a composite of a human body and spirit—if we mean by 'spirit' the form that inheres in the matter of the human body and maintains it [as such],¹⁸—and 2) as the matter and form of any body, and as 3) a 'triangle' is a composite of a plane and three lines enclosing it, the first two being examples of an externally composite substance, and the last an example¹⁹ of an externally composite accident; or, [the composite is]

¹⁷ MS gl: Such as the Necessary Existent [al-Wājib], a point [nuqtah], and oneness [waḥdah].

¹⁸ MS gl: But as for the 'spirit', in the sense of the rational soul [al-nafs al-nāṭiqah], it not conceivable at all that there would be any [externally] real composition [tarkīb ḥaqīqī] between [the soul and the body].

¹⁹ L and T add "is an example" [mithāl], while the MS and MS Garrett 989Ha assume its presence.

b) an intellectually [composite entity], its parts not externally differentiated, that is, none of them having independent existence, but rather, the constituting of any one [part] would mean the constituting externally of [each] other [part], and the constituting externally of the composite entity itself would mean the constituting of [all] its parts.

The parts [of the latter class] are differentiated only in the intellect,

1) as are 'transcendent entities'²⁰—if we should posit substance as the genus for [the quiddity],²¹ then in that case it would need some differentia to give it subsistence, but neither its genus nor its differentia would be externally differentiated, MS 53b because the constituting of these two and the constituting of the species would be one operation—; and

2) as is 'black' [the notion] that is composed of color quality and its specific difference that our author termed blackness, for the genus of 'black' is not externally differentiated from its differentia. [This is] because,

aa) if the existence of its genus were externally differentiated from the existence of its differentia, and

bb) if each of the two were perceptibly sensate, then implicitly our sense perception of the 'black' would be a sense perception of two sensate entities; but this would be false by inherent necessity. But

cc) if one of the two were perceptibly sensate, and that sensate one were the black, then implicitly one of the two would have entry into the nature of the other; but this is impossible. And

dd) if one of the two were not perceptibly sensate, then upon their joining together,

11) if a perceptibly sensate structure should not be originated, then the 'black' would not be perceptibly sensate; but

22) if a perceptibly sensate structure should be originated, then that structure would be the effect of the joining together of the genus and the differentia. Therefore, [the structure] would be external to both of them, and it would be accidental to both of them, and that structure would be the perceptibly sensate 'black'. Thus, the 'composition' would not be within the perceptibly

²⁰ MS 53a gl: Le., intellects and souls [al-'uqūl wa-al-nufūs].

²¹ The MS alone of sources used adds "for it" [bi-hā].

sensate 'black',^{22,23} but rather, within both the factor that activates it²⁴ and the factor that accepts it.²⁵

This requires consideration, since we do not grant that, if a perceptibly sensate structure should be originated, then implicitly it would be accidental to these two [i.e., the genus and the differentia]. That would be implied only if the perceptibly sensate structure should not be a composite of the genus and the differentia, but this is impossible. T 49 For the fact is, it is admissible that neither of the two be perceptibly sensate by itself, but that the composite would be a perceptibly sensate structure and temporally originated. Thus, it would not be accidental to [the genus and the differentia], but rather would subsist in them both, and the composite then would be within itself [i.e., the structure], not in the factors that activate and accept it.

Truly, the genus and the differentia are not differentiated in external [general] existence. Now, if each of them were to have external [general] existence, the implication would be that neither of them would be predicated synonymously of the other, and that they would not be L 106 predicated synonymously of the species.²⁶ [This is so] because it is impossible for a certain given thing to have being as something different from itself within its own existence, this [impossibility] being an inherent necessity, for neither of the two existents that differ from each other would be the other.

An objection might be raised that, if a distinction in external [general] existence should require the impossibility of synonymous predication then a distinction in mental MS 54a existence would also require the impossibility of synonymous predication; and then if neither of the two distinct existents within the mind should itself be the

²² The scribe of L in Istanbul inadvertently wrote the adjective "specific" [makḥṣūṣ] instead of "perceptibly sensate" [maḥṣūs]. This error was corrected in T, and does not occur in the MS or MS Garrett 989Ha.

²³ L gl: Because the perceptibly sensate 'black' is accidental to them both, and an accident does not have composition, but rather, it would be in the substrate.

²⁴ L 105 gl: What is meant by the 'factor that activates it' is the joining together of the parts, and by the 'factor that accepts it' is the parts, namely the color quality and its visibility [qābidīyatuhu al-baṣar].

²⁵ L gl: These being the genus and the differentia. As for their both being the accepting factor, this is because [the black] is made accidental to them, and as for their both being the activating factor for it, this is because it occurs upon their joining together.

²⁶ MS gl: Because the species is different from each of the other two.

other existent, then there would be no differentiation between the genus and the differentia in mental existence as well.

The reply to this [objection] is that the differentiation in mental existence would require that it be impossible for a genus restricted to mental existence to be predicated of a differentia and species, but it would not require that it be impossible for a genus to be predicated regardless of whether the existence is mental or external.²⁷

If an objection should be raised that this may also be considered true of external [general] existence, for a genus that is predicated externally would still be a genus regardless of whether [or not] the [general] existence is external, then the reply to this [objection] would be that a consideration of the genus, regardless of whether [or not] its [general] existence is external, would be only in the intellect.

b. Therefore, the parts [of a quiddity that is a composite intellectually] would be either mutually interpenetrating or mutually differentiated.²⁸ This is so because some parts of the quiddity are very general and some are not so, the former being called

1. mutually interpenetrating, as the genera and the differentiae, and the latter

2. mutually differentiated but resembling one another,²⁹ as the units [in a set] of ten, or as

3. mutually differentiated but intelligible entities, as the primal matter and form of a body, or

4. [mutually differentiated but] perceptibly sensate, as are the members of a [human] body, and as anything spotted is a composite of black and white.

Furthermore, the parts [of a quiddity] have being either as completely existential, or as some existential and some nonexistential. If they are completely existential, then inevitably they all will have being either as a real nature, or adjunctively so, or as an intermixture wherein part is a real nature and part is adjunctive.

²⁷ The MS alone of sources used omits "or external."

²⁸ L and T reverse the sequence of the adjectives from the order found in the MS and MS Garrett 989Ha. However, the parallel in the following sentence matches the order in the MS.

²⁹ MS gl: I.e., they are compatible in real nature but differentiated in quiddity. These parts are either a) distinguishable in the intellect and not by the senses, as a body composed of primal matter and form, its parts being mutually different and distinguishable by the intellect apart from the senses, or b) [they are distinguishable]

5. If they are all real in nature, they would be as the foregoing examples, primal matter and form and the units [in a set] of ten.

6. If they are all adjunctive, they would be as the parts of a nearer contiguity and a somewhat distant contiguity,³⁰ for each of the two is the composite of an adjunction that is made accidental to another adjunction.

7. If they are an intermixture of the two [types], then it would be like the throne of a king, a composite of a specific body and its adjunction to the king.

8. And if some of [the parts of a quiddity] are existential and some are nonexistential, then it would be as the parts of the first [class of quiddities]. The first class is a composite of an existential factor, that being the fact that it is the source of everything else, MS 54b and a nonexistential factor, that being the fact that it has no other source.

Baydawi said:

L 106, T 49

Corollaries [to this classification follow]:

Corollary regarding the simple quiddity

Regarding the first class, an objection has been raised that the simple quiddities L 107 are not constituted entities, since anything needing a cause would be only a possibility, and that is an adjunction, so it would not be applied to them.

But, [in reply to this] we hold that any mental consideration may be applied to them in respect to their existence.

externally, that is, by the senses, as the members of the human body. [From *Sharh Maṣāqif al-Ījī*/by al-Sharīf al-Jurjānī.]

³⁰ MS glosses: 1) For they are a composite of an immediate contiguity [al-qurb] and an extension of the contiguity [ziyādat al-qurb], both of them being adjunctive and nonexistential [iqāfi 'adamī].

2) If this had been exemplified by [the contiguities] of immediacy and of some distance [bi-al-aqrabīyah wa-al-ab'adīyah] it would have been preferable, because the immediate and the more distant contiguities are composites of an essence with an extension of the immediate contiguity [ziyādat al-qurb] and an essence with an extension of the distant contiguity, and there is no doubt that the essence of one of the parts is not adjunctive.

Isfahani says:

L 107, T 49, MS 54b

Our author, [Baydawi], has appended three corollaries to the topic on the classes of the quiddity: 1. Regarding the simple quiddity, 2. Regarding the composite [quiddity] with distinguishable parts, and 3. Regarding the composite [quiddity] with interpenetrating parts.

Corollary regarding the simple quiddity

Objection has been raised that the simple quiddities are not constituted entities, because if they had been constituted they would need a cause and they would be possible realities, since anything needing a cause would be only a possibility. But the simple elements are not possible realities, because possibility is an adjunction and would not be applied to simple quiddities, and because adjunction would require that there be a duality, and there is no duality in the simple quiddities.³¹

Our author replied to this that our position does not grant that the simple quiddities may not be possible realities.

The objector states that it is because possibility is an adjunction, and we reply that that is granted.

The objector states that therefore [an adjunction] may not be applied to simple quiddities, but we hold that this [inference] would be impossible.

The objector states that it is because an adjunction would require duality, and we reply that this is granted.

The objector states that there is no duality in the simple quiddities.

Our position is that, if he means that the simple quiddities have no duality in them according to their constituent factors, then that is granted. But the application of possibility does not require that there be any duality according to their constituent factors. Possibility is a mental consideration which may be applied to the simple quiddities with reference to their [general] existence; thus [the possibility] requires duality in consideration of their quiddity and their [general] existence. Simple quiddities have duality with this consideration, but the duality with this consideration does not imply that there would be any composition in the essence of the simple quiddities.

But, if [the objector] means that the simple quiddities have no duality at all, then that inference would be impossible, for the simple

³¹ MS gl: Otherwise, composition would be implied.

quiddities do have a duality in consideration of their quiddity and their [general] existence.

Baydawi said:

L 107, T 49

Corollary regarding the composite quiddity with distinguishable parts

If a composite [quiddity] is self-subsistent, then one of its parts will be independent and the rest will subsist in [that part]. If it subsists in something else, then [either] all its parts will subsist in [the other entity], or, one of them-(a) will be in [the other entity-(b)], and the rest will be in that subsisting entity-(a).

Isfahani says:

L 107, T 49, MS 54b

Corollary regarding the composite quiddity with distinguishable parts

If a composite [quiddity] is self-subsistent, that is, if it has no need in its subsisting for a substrate in which to subsist, then one of its parts will be independent, that is, self-subsisting, not subsisting in a substrate, and the rest of the parts will subsist in that independent part. That is like a body that is a composite of primal matter and form. The body is self-subsistent since it needs no substrate in which to subsist. One of its parts is independent, that being the primal matter, and it does not exist in a substrate; the form subsists MS 55a in the primal matter, because form inheres in primal matter.

If the composite [quiddity] should subsist in some other entity, T 50 then all of its parts would subsist in that other, according to the view of those who hold that it is not admissible for an accident to subsist in an accident. Or, a portion-(a) of the composite will have subsistence L 108 in that other in which the composite is subsisting, while the other portion-(b) will subsist in portion-(a) that subsists in the other entity, according to the view of those³² who hold that it is admissible for an accident to subsist in an accident. That is like swift movement, it being a composite of motion and speed and subsisting in a body; the speed subsists in the motion that is subsisting in the body.

³² MS gl: These being the philosophers.

Baydawi said:

L 108, T 50

Corollary regarding the composite quiddity with interpenetrating parts

An objection has been raised that the differentia necessarily exists as a causal factor for the existence of the genus; otherwise, either the genus would be a causal factor for [the differentia], and thus [the differentia] would be its concomitant, or it would not be, and thus each of the two would have no need for the other, so a composite of the two of them would be impossible.

Our position is that if you the objectors mean by the 'causal factor' something on which another entity would be entirely dependent, then there is no implication that the causality of the genus would make the differentia a concomitant to it. But, if by it you mean that which makes it 'necessary', then the lack of any causality of one for the other would not imply that one would have no need for the other in an absolute sense, because it is admissible that the differentia would be something inhering in the genus.

Isfahani says:

L 108, T 50, MS 55a

Corollary regarding the composite quiddity with interpenetrating parts

An objection has been raised that the differentia necessarily exists as a causal factor for the existence of the genus. This is because if the differentia should not be a causal factor for the existence of the genus, then inevitably either the genus would be a causal factor for the differentia, or it would not be.

If the genus should be a causal factor for the differentia, then the differentia would be a concomitant to the genus, but this is impossible because of the inherent necessity for the genus to have reality without the differentia. But if the genus should not be a causal factor for the differentia, then the implication would be that the genus and the differentia both would have no need for each other, so it would be impossible for a composite to be formed of the two as a single reality.

Our author's position is that, if you objectors mean by the causal factor something on which another entity would be entirely dependent, something more inclusive either than being complete or lacking, then the causality of the genus for the differentia would not imply that the genus would have the differentia as concomitant, since

the existence of an effect may not be inferred from an incomplete cause.

But, if you mean by the causal factor something that makes the effect necessary, that is, a complete causal factor, then the lack of a causality of one for the other would not imply that both have no need for each other. [This is because] it would be admissible that one not be a complete causal factor for the other but be an incomplete causal factor for it, a case in which the differentia would be something subsisting in the genus while the genus would be an incomplete causal factor for it.

In truth, the differentia is a causal factor for the [general] existence of the genus, in the sense that the nature of the genus in the intellect is an ambiguous matter that does not occur by itself, but [the genus] is capable of becoming many things³³ each one having a specific identity. [The genus] needs the mind to bring into adjunction with it some additional causal entity³⁴ by which it would become realized and individualized and would become one of these [many species]. MS 55b This additional entity is a differentia, and its causality in this sense cannot be prevented.

To imagine that the differentia would be L 109 a causal factor for the nature of the genus externally would be a mistake, because externally the differentia is the same as the genus, so it would not be a causal factor of the genus. If it should be otherwise, then the implication would be that [the differentia] was antecedent in [general] existence to [the genus]; thus [the genus itself]³⁵ cannot possibly be the difference.

Baydawi said:

L 109, T 50

3. *Individuation*³⁶

The 'quiddity in itself' does not reject commonality [as a relationship]; but [the 'quiddity as] an individual' does reject [the relationship],

³³ MS gl: I.e., many species, in all of which it has the same identity in their existence.

³⁴ Translating here [ma'na'] as 'causal entity', and elsewhere [ʿillah] as 'causal factor'. Isfahani appears to treat them as synonyms here.

³⁵ The MS has placed [huwa] both before and after [bi-'aynihi]. Apparently the latter was inadvertently written in, then the former was added in the margin as a correction, but with a different pen.

³⁶ [al-ta'ayyun] or, [al-tashakhkhush].

for then there would be an additional factor within it, namely, [its process of] individuation. There are two points that prove the [general] existence [of the individuation].

a. It is a part of an existent individual, and so it would be an existent thing.

b. If the individuation should be nonexistent, then its non-existence would be due to some other individuation. Thus one of the two [individuations] would be [an individuation of] something certain, and it would correspond to the other, so both of them would be certainties.

An objection might be raised to prevent any correspondence between them, in that if they were to correspond with one another, then no individual would be realized from the addition of the [process of] individuation to the quiddity, because the joining of a universal to a universal does not produce a particular.

Isfahani says:

L 109, T 50, MS 55b

3. *Individuation*

The 'quiddity in itself' does not reject commonality [as a relationship], that is, the concept of [the quiddity in itself] does not prevent any commonality in it. But [the 'quiddity as] an individual' does reject commonality; that is, the very concept of [an individual quiddity] prevents any commonality in it. So, necessarily there would be an additional factor in the ['quiddity as an] individual', and that is its 'individuation' [i.e., the 'individualizing', or, 'particularizing process']. Thus, 'individuation' through which the concept of the 'quiddity as an individual' prevents any commonality in itself, is an addition to the quiddity.

Our author [Baydawi] states that two factors indicate that the individuation³⁷ has external existence.

a. Individuation constitutes a part of the externally existent individual [example]; and, a part of an external existent would itself be an external existent.

However, this requires consideration, because

³⁷ L has in error [shakhṣ] where the other sources used have [tashakhkhuṣ].

1. if what is meant by the 'individual' should be the subject-substrate for the individuation,³⁸ then we would not grant that the individuation would be a part of it, but rather, the individuation would be accidental to it; but the existence of the subject-substrate in external reality does not imply that the accidental quality inhering within the substrate would have existence in [external reality].

2. And if what is meant by the 'individual' should be a totality, a composite of quiddity and individuation, then we would not grant that the individual in this sense would be an external existent, because an individual in this sense would be [only] a mental entity.

b. If the 'particularization', that is, the 'individuation', should be nonexistent,³⁹ then [the individuation] would be either

1. nonexistent due to some 'other individuation',⁴⁰ or
2. nonexistent due to some 'nonindividuation', or
3. nonexistent due to something else.

That is so because, if the individuation should be one of nonexistence, then it would not be nonexistence in an absolute sense, but in an adjunctive sense, and adjunctive nonexistence is limited to these three [options].

The third-(3.) [of these options] is invalid. If it should be otherwise, then the existence [of the individuation]⁴¹ would imply the exclusion of any individuation. But no other entity has materialized, the existence of which would imply the exclusion of individuation.⁴² [This is] because anything whatsoever, the existence of which would be assumed, logically requires 'individuation'. And an entity that makes a requirement is precluded by its own existence from requiring its own self-removal [from existence].

The second-(2.) [of the three classes], namely, that [the individuation] would be nonexistent due to some nonindividuation, requires that the individuation be existential, because L 110 the nonindividuation would be nonexistent, and the negative of the nonexistent would be existential.

The first-(1.) [of the three classes], namely, that [the individuation]

³⁸ Here the MS alone of sources used adds, "by itself" [wahdahū].

³⁹ MS gl: This is the argument of the Imam [F.D.] Razi.

⁴⁰ For clarity, both Arabic synonyms [tashakhkhuṣ/ta'ayyun] will be translated "individuation," except where noted.

⁴¹ An MS gloss indicates the antecedent here.

⁴² The MS and MS Garrett 989Ha lack the following sentence, but the Garrett MS inserts it as a gloss. L and T include it in the text.

would be nonexistential due to some other individuation, requires that one MS 56a T 51 of the two individuations be existential, while the other individuation [i.e., the nonexistential one] would correspond to it. [This is so] because the individuation [process] is a single reality,⁴³ a commonality that is shared among the [several] individuations, but that varies in the external examples, [a consideration] entirely aside from the differentia. Thus both [of the two corresponding individuations, one in existence and one in nonexistence] would be certainties.

Our author, [Baydawī], held that an objection might be raised to prevent this correspondence [between the two individuations, the argument being that] if the individuations should mutually correspond then no individual would become individuated by the joining of the individuation to the quiddity. In that case, the individuation would be a universal and the quiddity would be a universal, and the joining of a universal to a universal does not produce a particular, as [it does] with the addition of the properties [of the species]⁴⁴ to the quiddity of the species, as for example, a man as being tall, handsome, gracious, native-born to a certain place, and speaking on a certain day. Rather, for [several] individuations to have a commonality in the [process of] individuation would be [the same as] for [several] particular entities to have a commonality in an accidental quality, thus no correspondence among the individuations would be implied.

Also, we do not grant that, if the individuation should be non-existential, then it would be a 'nonexistence due to some other entity', but rather, [we say] that it would be a nonexistent entity, and 'a nonexistent entity' is not 'nonexistence due to some [other] entity'. Also, we do not grant that nonindividuation is something nonexistential. [This is] because there is no implication that a thing referred to in the negative⁴⁵ would be nonexistential, but [rather], it is considered to be not nonexistent;⁴⁶ and on the supposition that

⁴³ MS gl: As the 'real nature' of man; for this 'real nature' is a commonality shared among the parts of a man, but it differs in the external examples [of mankind].

⁴⁴ Added by the MS.

⁴⁵ MS gl: I.e., a proposition which is negative in subject or predicate [al-qāḍiyah al-ma'dūlah].

⁴⁶ MS gl: His expression is, "But it is considered to be not nonexistent [al-lā-ma'dūm]", because it is referred to in the negative in spite of the fact that it is existential [wujūdī].

the 'nonindividuation' would be nonexistential, there would be no implicit necessity that the 'individuation' would be existential, because a 'non-impossibility' would be 'nonexistential', and an impossibility would be likewise.

Baydawi said:

L 110, T 51

Whether individuation is existential

The Mutakallimun denied [that individuation is existential] for several reasons.

a. If [the individuation] should be an addition [to the quiddity], then individual examples of [the individuation] would have a commonality in it, but would differ from one another through another individuation, and so an infinite series argument would be implicit.

a.-a. The answer [to this point] is that [the category 'individuation'] is predicated as an accident of its individual examples, as [in the case of] the quiddity, [each 'quiddity' being] differentiated by its 'essence', thus having no need at all for other individuations.

b. If this particular individuation should be made specific to this particular portion [i.e., of a genus], then a distinction [of it] would be called for, and a circular argument would be implicit. Also, it would be inconsistent with the specification of the differentia for the individual portions of the genera.

b.-a. The answer is that the distinction is required simultaneously with [the individuation], not before it.

c. The adjunction of the individuation to the quiddity would call for its [prior] existence, because of the impossibility of adjoining an existent [i.e., the quiddity] to a non-existent [i.e., the not yet existent individuation]. Therefore, the existence of [the individuation] would either require some other [prior] individuation, and then an infinite series would be implicit, or it would not, and that is the goal of the argument.

c.-a. The answer is that existence would be simultaneous with [the individuation], not before it.

Isfahani says:

L 110, T 51, MS 56a

Whether individuation is existential

The Mutakallimun denied that individuation is an existential entity added to the quiddity that is individuated, for three reasons.

a. [Their first reason is that], if the individuation should be something added to the individuated quiddity, then [all] the individual examples of individuation would have commonality in L 111 the individuation. [This is] because, if it should be an existential entity added to the individuated quiddity, then the individuation would have a universal quiddity that would constitute the total reality of the individual examples of individuation. And the individuations that would be the individual examples of the '[universal] individuation' would [then] be made distinguishable by [the action of] another [second] individuation, since the distinguishing from one another of the individuals having commonality in the total reality would be by individuation. Thus, the '[universal] individuation' would have another individuation [of its own], and the discussion of this [second] individuation of the '[universal] individuation' would be like the discussion of the [first] individuation, and so argument in an infinite series would be implicit.

a.-a. The answer⁴⁷ [to the first reason] is that the individuation of each individuated entity has MS 56b a quiddity that differs from the individuation of any other individuated entity, and the species of [the quiddity] is confined within the individual individuation. The individuation that is predicated of [all] the individual examples of individuation is predicated of them in an accidental sense, just as [the category 'quiddity' is predicated of the 'quiddities',—which [actually] comprise the 'substance' and its species and the 'attribute' and its genera, such as quantity, quality and adjunctive relation,—[the term] 'quiddity' being predicated of the [various] quiddities in an accidental sense. Since the individual examples of individuation differ in their essences, distinguishing them from one another is by means of the essence, and there is no need for other individuations to distinguish them from one another, thus, no individuated entity would have another individuation. And so, there would be no implicit infinite series argument.

⁴⁷ MS gl: [This reply is] on the part of the physician-philosopher, [Ibn Sina].

b. The second [reason given by the Mutakallimun] is that, if the individuation should be an addition to the quiddity of the individuated entity, then the specificity of this individuation, that is, the individuation of an individual with this [particular] portion of the quiddity of individual being would require that this [particular] portion of the quiddity of individual being be distinguished from the other individuated portions.⁴⁸ Otherwise, the specification of this individuation for this [particular] portion apart from all of the other portions, would be specification without an agent of specification. However, the distinction of the portion depends upon this [particular] individuation being specified for [the portion]. So, the specifying of this particular individuation for this [particular] portion depends upon [the portion] being made distinct, and its being made distinct depends upon its specification, thus a circular argument is implicit.

b.-a1. [In answer, we say that] this second point in the whole proof⁴⁹ is contradicted by the fact that the specification process is of the differentia for the portions of the genera. Indeed, [the contradicted point] is itself involved in [the fact of this specification]. For if this point were valid, then a circular argument would be implicit in the specification of the differentia for the portions of the genera. In that case, the specification of this [particular] differentia for this [particular] portion of genus would call for the distinguishing of that portion from all the other portions; but the distinction of that portion from all the other portions is dependent upon the specification of this differentia for this portion. Thus, a circular argument is implicit, and therefore, the specification of this differentia for this portion would be impossible.

But [nevertheless] this differentia is specific to this portion, so this point in the proof is not valid; and this fact constitutes a total contradiction of this [second point in the] proof.

b.-a2. A further answer to this second point in the proof [of the Mutakallimun] L 112 in a matter of detail is that the specification of this [particular] individuation to this [particular] portion MS 57a requires that the distinguishing of the portion take place simultaneously

⁴⁸ Romanized: [Ay, ta'ayyun al-shakhṣ bi-hādhihi al-ḥiṣṣah min māhīyat al-shakhṣ yastad't tamayyuz ḥiṣṣat hādihā al-shakhṣ min māhīyatihi 'an ghayrihā min ḥiṣṣat al-muta'ayyanāt].

⁴⁹ MŠ gl: *Lc.*, the argument of the Mutakallimun.

with its specification, not before the specification, and thus no circular argument is implicit.

c. The third reason [of the Mutakallimun] is that if the individuation should be an existential entity and an addition to the quiddity of the individuated entity, then the adjoining of the [new] individual to the quiddity would require the [prior] existence of the quiddity, because it is impossible to add an existent, that being the [new] individuation, to a quiddity that [still] would be a nonexistent.

Therefore, [they say], either the existence of the quiddity would require another individuation, and then the discussion would be transferred to it and an argument in an infinite series would be implicit; or the existence of the quiddity would not require another individuation, and then the existence of the quiddity T 52 with no additional individuation would be implied, and that is the logical goal of their argument.

c.-a. The answer [to their third reason] is that the existence of the quiddity is present together with the addition³⁰ of the individuation to it, so there would be no implication of an infinite series argument, nor of the quiddity existing with no individuation. Of these two—argument in an infinite series, or the quiddity existing with no individuation—one of them would be implied only if the individuation should be added to the quiddity subsequent to the existence of the quiddity, but if the adding of the individuation should be simultaneous with [the existence of the quiddity], then there would be no implication.

Baydawi said:

L 112, T 52

The philosopher's corollary

As a corollary [to the individuation being an addition to the quiddity], the philosophers held that, if the quiddity should require individuation because of its essence, then its species would be restricted to its individual, because of the impossibility of there being any disagreement among the concomitants of a single nature.

If it should be otherwise, then individuation in [the quiddity] would be caused by the individuation in its material bases and the accidental

³⁰ MS: [inḍimām]; L & P: [inḍiyāf].

qualities enclosing [the material bases]. Thus, the individuations [of quiddity] would multiply because of the multiplication of [their material bases].

An objection has been raised against [this view] that, if the individuation of the material bases and their accidental qualities should be caused by their real natures, then they would not multiply;⁵¹ otherwise, an infinite series argument [would arise over] the material bases.⁵²

The truth of the matter is [to be found] in assigning that [whole] problem to the will of the [divine] Agent of free choice.

Isfahani says:

L 112, T 52, MS 57a

The philosopher's corollary

There is a corollary to the individuation being an existential entity added to the quiddity. When [Baydawi] had finished presenting the quiddity of the individuation and its existential nature, he then wanted to indicate what it is that brings about⁵³ the individuation.

The philosophers held that if the quiddity should require individuation due to its own essence, then its species would be restricted to its individual example. This is because

a. whenever a quiddity requires individuation it is prevented from becoming realized in any other individuation. If it should be otherwise,⁵⁴ then it would be possible for an effect to vary from its cause.⁵⁵ And it is because

b. if the quiddity should require individuation due to its own essence, then the individuation would be among the concomitants of the quiddity; so, if the species [of the quiddity] should not be restricted to an individual example, then [the quiddity] would have

⁵¹ L reads [yata'adda'] whereas the other sources used read [yata'addad].

⁵² Presumably the unnamed subject of the verb would be "argument" [la-tasal-salat al-mawādd], [here L alone gives the verb a masculine ending].

⁵³ L gl: [I.e.], to what he had previously presented, that the individuation is a mental entity [amr i'tibārī].

⁵⁴ MS gl: I.e., if it were not so prevented.

⁵⁵ Here L reads, "its causality" [illiyatihi], while T & the MS read, [illatihi].

MS gl: what is meant by the effect [al-ma'lūl] is the individual, and by the causal factor [illah] is the quiddity.

another individual,⁵⁶ the individuation of [that individual] would be among [the concomitants [of the quiddity]]. However, the two individuals would be mutually different, so the implication is that there would be a disagreement among the concomitants of a single nature, L 113 and this is impossible by inherent necessity.⁵⁷

[Baydawi's] statement is, "If it should be otherwise",—that is, if the quiddity should not require individuation due to its own essence,—“then the individuation of the quiddity would be caused by the individuation of its material bases and the accidental qualities enclosing them.”

That is so because, if the quiddity should not require the individuation because of its own essence,⁵⁸ MS 57b then its individuation inevitably would be through a cause. But that cause may not be something obviously different,⁵⁹ because an obviously different entity would be related to all⁶⁰ equally, and thus, its being specific to one portion and not to another portion would constitute a preferring action without an agent of preference.⁶¹ However, an entity that would not be obviously different either would be inhering in the individuation, or would be a substrate for it. The former option is invalid because a substrate would be antecedent to an inhering factor, and an inhering factor would not be the cause of the individuation, thus the latter option is indicated.

Therefore, the individuation [of the quiddity] would be caused by the individuation of its material bases and the accidental qualities enclosing them, such as a particular ‘place where’, or a particular

⁵⁶ Here T alone reads ‘individuation’ [tashakhkhus], while L, the MS and MS Garrett 989Ha read ‘individual’ [shakhṣ].

⁵⁷ Here what is presumed to be a gloss is inserted by T: “[This is] because exclusion of the necessity would be implied in case of its being realized.”

A less preferable gloss in L and in MS Garrett 989Ha reads, “[This is] because none of these concomitants exist with another. So if the quiddity should exist with [only] one of them then it would be existing without another, and thus what we have assumed to be a concomitant to the quiddity would not be its concomitant.”

⁵⁸ Here the MS and MS Garrett 989Ha add: “then there would have to be some material base to which the individuation would be related, because, MS 57b if the quiddity should not require the individuation due to its own essence . . .”

L and T have omitted this, apparently as a redundancy.

⁵⁹ MS gl: I.e., [for example], the active intellect [al-‘aql al-fa‘‘āl].

⁶⁰ MS gl: I.e., to all the individuals and the individuations equally, so it could not possibly be the cause for the individuation of one and not another.

⁶¹ The foregoing clause is not in the MS or MS Garrett 989Ha.

'manner how', or a particular 'position so'.⁶² Then it would be admissible that the multiplication of individual examples of the quiddity should be according to the multiplication of the material bases.

If an objection should be raised that it would be admissible for the cause⁶³ [of the individuation] to inhere in the substrate of the individuation, but not to inhere in the individuation nor to be its substrate, then the reply would be that the factor inhering in the substrate of the individuation would have need for the substrate, thus, the individuation would be based in the substrate since its cause was based in it.

For this reason [the philosophers] held that the individuation of [the quiddity] is caused by the individuation of its material bases and the accidental qualities enclosing them, because then the cause of the individuation would be both the inhering factor and the substrate taken together as a whole.

Objection has been raised against this⁶⁴ to the effect that, if the individuation of the material bases and their accidental qualities should be caused by their real natures, then the material bases and their accidents would not multiply, and there would be no multiplication of the quiddity's individuals⁶⁵ the individuation of which is caused by their material bases and the accidental qualities enclosing them.⁶⁶ And if it should be otherwise, that is, if the individuation of the material bases should not be caused by their real natures, then the individuation of the material bases and their accidents would be caused by other material bases, and the discussion would be transferred to [these other material bases], and an infinite series argument would be implicit.

The reply [to this objection] is that an entity that would not accept plurality because of its own essence has need, if it is to become plural, for something⁶⁷ that will accept plurality in its essence, and that is 'matter'. Now, an entity that accepts plurality in its essence,—by this I mean 'matter',—has no need for another recipient in order

⁶² [al-'ayn al-mu'ayyan]; [al-kayf]; [al-waḍ'].

⁶³ MS gl: Which would be the not obviously different entity.

⁶⁴ MS gl: I.e., against the doctrine of the philosophers.

⁶⁵ L reads only, "its individuals" [ashkhāṣuhā]. T, the MS and MS Garrett 989Ha give the complete sense, reading, "the individuals of the quiddity."

⁶⁶ MS gl: I.e., which are mingled with them.

⁶⁷ Here the MS alone supplies "else."

for it to multiply; but rather, it only needs an agent merely to make it multiply.

Truly, the individuation of quiddity individuals is to be assigned to the will of the [divine] Agent of free choice, for it is His will that requires all matter⁶⁸ to become particularized through an individuation suitable for it.

⁶⁸ MS: quiddity [māhīyah]; L, T and MS Garrett 989Ha: matter [māddah].

CHAPTER 4: NECESSITY AND POSSIBILITY,
ETERNITY AND TEMPORALITY

1. *These subjects are intellectual entities having no external existence*

a. *Necessity and Possibility.* Regarding both Necessity and Possibility [this topical statement] is true:

1. Because if they both should have [external] existence then the relationship of existence to [abstract] necessity would be [one] of necessity, while [its relationship] to [abstract] possibility would be [one] of possibility. But if it should be otherwise, then a necessary reality would become possible, and a possible reality would [become] necessary; L 114 but this is impossible, and it would imply an infinite series argument. [Moreover, the topical statement is true],

2. Because—both the requisite [factor arising out] of existence, [namely, abstract necessity], together with the nonrequisite [factor arising out of existence, namely, abstract possibility], that is in need of being made existent, and that precedes the existence of any possible reality,—take precedence, by reason of [their] essence over the existence of both a necessary reality, and a possible reality. Thus, if both these [abstractions] should come into existence, then the implication would be that an [abstract] characteristic would be taking precedence [in coming into existence] over a subject-substrate, namely, what is characterized.

An objection is raised that then they both would stand as contraries to nonexistent impossibility, and thus, they both would be existents [externally].

[In reply], our position is that the contrary of what would be the nonexistent [phase] of an external existent is an [external] existent, but it is not so with the contrary of intellectual entities.

¹ [la qadama al-qidam]—vowelled so by the scribe of L.

b. *Eternity and Temporality*. Regarding past Eternity and Temporality, [the topical statement is true] because if they both should have [external] existence, then 'past eternity' would have preceded,¹ and [subsequently] 'temporal phenomena' would have occurred, so an infinite series argument would be implicit.

Isfahani says:

L 114, T 52, MS 57b/58a

CHAPTER 4: NECESSITY AND POSSIBILITY, ETERNITY AND TEMPORALITY

When Baydawi had finished Chapter 3 he began Chapter 4 [on the four subjects listed here], but he set them forth in five topics:

1. These [four subjects] are intellectual entities; 2. The distinguishing properties of Necessity; 3. The distinguishing properties of Possibility; 4. Eternity; 5. Temporality.

1. *These subjects are intellectual entities having no external existence*

a. *Necessity and Possibility*. Regarding Necessity and Possibility, this [topical statement] is true for two reasons.

1. It is true because if both necessity T 53 and possibility should come into [external] existence, then the relationship of existence to necessity would be [one] of necessity, and the relationship of existence to possibility would be [one] of possibility. Baydawi's expression is, "But if it should be otherwise." That is, if the relationship of existence to necessity should not be one of necessity, and if the relationship of existence to possibility should not be one of possibility, then [in that case] the relationship of existence to necessity would become one of possibility, and the relationship of existence to possibility would become one of necessity. This is inevitable because of the fact that the relationship of existence to an existent entity is confined to [the categories of] necessity and possibility.

Thus, if one of these two should be excluded, then the other would be realized. And if the relationship of existence to necessity should be one of possibility, and the relationship of existence to possibility should be one of necessity, then a necessary reality would become possible, and a possible reality would become necessary.

Now, as to a necessary reality becoming possible, [the topical statement would be true,] because if necessity should become possibility, then a necessary reality would become a possible reality. [This is] because a necessary reality is a necessary reality only because of this abstract necessity, which is possible. Therefore, if some factor,—by which a thing has being as a necessary reality,—should become possible, then this necessary reality would become a possible reality.

And so, an objection could be raised, [regarding a case where, if] necessity should be the attribute of a necessary reality, but the possibility of the attribute would not imply that the subject-substrate characterized [by the attribute] was a possibility, then the attribute, because of its need for a subject-substrate to be characterized, would become possibility, while the subject-substrate to be characterized admissibly might have no need for anything other than itself, and thus would not be a possibility. Thus, the possibility of the attribute, namely, 'abstract necessity', would not imply L 115 the possibility of the subject-substrate to be characterized, namely, a 'necessary reality'.

The reply [to this objection] is that if the attribute should be 'possibility', then the subject-substrate being characterized, in view of its being the subject-substrate characterized by that attribute, would be a possible reality. This is because, in view of its being the subject-substrate characterized MS 58b by that attribute, it would have need for the reality given [to it] by the attribute of 'possibility', and from this point of view it would be a possible reality. But a necessary reality, in view of its being necessary, would have need for an attribute of 'necessity', because it would be a necessary reality only in consideration of [its having] an attribute of necessity. Thus, if [the attribute of] 'necessity' should have been 'possibility', then the necessary reality, as being necessary, would have become a possible reality.

Therefore, someone could object by saying a. that it is granted that a necessary reality, as being necessary, would be a possible reality, but b. that that would not be impossible because of the admissibility that a necessary reality from this standpoint would be a possibility, while its essence would be a necessary reality. This is because the possibility of an entity, in view of its being characterized by an attribute [of possibility], would not require that that entity's essence be a possibility.

But then [another] objection would be raised that, if from this viewpoint [the entity] should be a possibility, then from this viewpoint it would be admissible that [the entity] could pass away. Thus, it would be admissible that the characteristic of necessity should pass away from the essence of the necessary reality, and therefore, this essence would not [continue to] be a necessary reality, but implicitly it would become a possible reality.²

The answer [to the latter objection] is that we do not grant that, if from this viewpoint [the entity] should have been a possibility, then from this viewpoint it would be admissible that [the entity] would pass away. Such a case would be implied only if the causal factor of necessity should not be its own essence whose passing away is impossible, but [such a case] would be an impossibility.

Indeed, the causal factor of 'necessity' is its own essence, whose passing away is impossible, and therefore, the passing away of [abstract] necessity is impossible,—even if [a given case] should be possible in itself,—because of the impossibility of the passing away of the causal factor [of necessity], namely, its own essence.

The truth of the matter is that

a) if the causal factor of necessity should be its own essence, then the implication would be either

1) that [the 'essence'] would take precedence over 'necessity' through both necessity and existence, and this would imply that a necessary reality would have another necessity, and then an argument in an infinite series would be implicit; or,

2) that the necessity would take precedence over itself, both of these alternatives being impossible. And

b) if the causal factor of necessity should be a factor other than its own essence, then it would imply

1) the admissibility of 'necessity' becoming disjoined from the essence, and this would imply that 'possibility' [was that causal factor].

² MS gl: We do not grant that if the essence should become realized without the abstract necessity that this would imply it was a possible reality, because of the admissibility that existence would be possessed by the Being who is necessary in His own essence, [huṣūl al-wujūd li-l-wājib li-dhātihi] and this is the meaning intended by "the Necessary [Existent] Reality" [al-wājib].

As for a case where³ the relationship of existence to possibility would be by necessity, [this] would require that a possible reality should become a necessary reality, since 'possibility' would be the attribute of a possible reality, so, if the attribute should be 'necessary', then the subject-substrate to be described would be a necessary reality.

Thus, it would be established that the relationship of existence to necessity would be by necessity, and the relationship of existence to possibility would be by possibility, so the discussion would move on to the necessity of necessity and to the possibility of possibility, and then an infinite series argument would be implicit.

But it would be preferable to hold MS 59a that, if necessity had been existent externally, then it would have been a possible reality because it would be an attribute, and an attribute has need for another entity, L 116 namely, its subject-substrate to be described, and what has need for something else is a possible reality.

Now, if necessity should be a possibility, then it would have a 'cause'; and then its 'cause' would be either

a) something other than the essence, so a disjoining of necessity from the essence would be admissible, and thus the possibility of the essence would be implied; or, [the cause would be]

b) the essence,⁴ and thus, the implication would be either

1) that the essence would take precedence both in necessity and existence over necessity, and this would imply that a necessary reality would have another necessity, and then an infinite series argument would be implicit, or

2) that necessity would take precedence over itself, both of these [latter] alternatives being impossible.

2. [The topical statement is true] moreover, because

a) [abstract] necessity, being a [factor] of existence requisite to the essence [of existence],—that is, [abstract necessity] has a rightful claim upon the essence of existence because of [necessity's] own essence,⁵—and

b) [abstract] possibility, being a [factor] of existence not requisite to the essence [of existence],—that is, [abstract possibility]

³ L and T insert, "the fact that" [anna], while the MS and MS Garrett 989Ha do not insert it.

⁴ The MS inserts, "itself" [ʿayn al-dhāt].

⁵ [ay istiḥqāqīyat al-dhāt al-wujūd li-dhātihi].

has no rightful claim upon existence because of [possibility's] own essence that has need to be made existent prior to the existence of a possible reality,—these two entities [i.e., abstract necessity and abstract possibility] are factors that would be taking precedence, by reason of their own essence, over the existence of a necessary reality and the existence of a possible reality. That is,

(a) [an entity that], in its essence, is a requisite of existence, namely, 'abstract necessity', would take precedence over the existence of a 'necessary reality', because having the right to existence in its own essence would take precedence in coming into existence. And

(b) [an entity that], in its essence, is a nonrequisite of existence, namely, 'abstract possibility', would take precedence over the existence of a 'possible reality', because abstract possibility, that is a nonrequisite of existence in its essence, has need to be made existent prior to the coming into existence of a possible reality, so it would precede in the [action of] becoming existent, and whatever takes precedence over what has had the precedence would then be the one having the precedence.

Therefore, if abstract 'necessity' and abstract 'possibility' should come into [external] existence, then the implication would be that an attribute was taking precedence [in coming into existence] over the subject-substrate to be described, and that would be impossible.

An objection has been raised that abstract necessity and abstract possibility both would stand as contraries to 'nonexistent impossibility' by the inherent necessity of [this impossibility] being affirmed of nonexistential entities. Thus, both abstract necessity and abstract possibility, standing as contraries to 'nonexistent impossibility', would be entities having [external] existence. [Baydawi] replied that [it is] the contrary of whatever would be the nonexistent phase T 54 of an external existent that would be an existent [externally], but it is not so with the contrary of intellectual entities;⁶ and you have learned

⁶ MS gl: [Abstract] necessity would not be the contrary of what would be the nonexistent phase of an external existent, and it is likewise with [abstract] possibility, because of the fact that each of them is the contrary of [abstract] impossibility, and [abstract] impossibility is not the nonexistent phase of an external existent, but rather it is an intellectual entity. [From the commentary of al-'Ibri upon Baydawi's text.]

that 'necessity', 'possibility', and 'impossibility', [all being abstractions] are all intellectual entities.

b. *Eternity and Temporality*. Regarding the fact that past eternity and temporality are intellectual entities,⁷ MS 59b if these two should become externally existent, then [all] eternity past would have preceded and [everything] temporal would have appeared. This would be because if eternity past had not been eternally ancient, and if temporality had not appeared as temporal phenomena, then, assuming that they both had external existence, the implication would be that eternity past was a temporal event and that temporality was eternal. This would imply that what was eternal would be temporal, and that what was temporal would be eternal,⁸ but both of these are impossible.

Moreover, if [all] ancient times should be [the same as] what is eternal, and if [all] temporality should be [the same as a mere] temporal event, then the discussion would move to 'the eternity of eternity past' and 'the temporality of temporality', thus an infinite series argument would be implicit.

Baydawi said:

L 116, T 54

2. *The distinguishing properties of necessity*

The distinguishing properties of necessity according to its own essence are [four in number and they are all grouped together in one discussion] as follows:

a. [Necessity] excludes necessity through any other than itself. If this should not be so, then [necessity] would be removed by [the other's] removal, and thus, it would not be a necessary reality in its own essence.

b. [Necessity] excludes [itself] L 117 from [any type of] composition, because any such [composition] would have need for parts that are differentiated from the composite structure.

⁷ L has omitted the predicate here.

⁸ Gloss in both the MS and L: His expression, 'this would imply that what was eternal would be temporal', is because 'eternity past' [al-qidam] is a concomitant attribute of what is eternal, and thus there would be an implicit inference from the temporal origination of ancient times to the temporal origination of what is eternal. [From al-Sharif al-Jurjani's glosses on Isfahani's commentary.]

c. If [necessity] should be assumed to be an 'established certainty', then it would not be an addition to its essence. If it should be otherwise, then [necessity] would have need for [its essence] and [so] would be a possible reality. Therefore, the theory that [necessity] would be a relationship between [its essence] and existence,—thus coming after [these two] and so being an addition,—would exclude the logical objective⁹ referred to.

d. [Necessity] may not be a commonality between two entities, and we will have more to say about this. Thus, if a necessary reality should be characterized by attributes, then the [reality's] essential necessity would be in its essence alone, while the attributes would be necessary by way of [the essence].¹⁰

Isfahani says:

L 117, T 54, MS 59b

2. *The distinguishing properties of necessity*

The distinguishing properties of necessity according to its essence are four in number [and they are all grouped together in one discussion, as follows]:

a. Necessity in its essence excludes necessity through any other than itself. That is, whatever would be a necessary reality in its essence would not be a necessary reality through any other than itself. This is because, if a necessary reality in its essence should be a necessary reality through some other [necessity] than itself, then it would be removed by the removal of the other [necessity], but what is necessary in its essence would not be removed by the removal of the other [necessity], and thus whatever would be a necessity through any other [necessity than itself] would not be a necessity in its essence.

⁹ [al-gharaḍ al-madhkūr] I.e., that it was an established certainty.

¹⁰ From earlier writers F.D. Razi had gleaned a list of ten distinguishing properties of 'necessity', as shown in his *Muhassal* pp. 66–70. This list was reduced in Baydawi's analysis to the four that he gives here. Presumably because of their reciprocal nature Baydawi made Razi's #2 and 3 into a single broad statement as his own #2. He removed Razi's #4 dealing with 'existence' (rather than 'necessity'), and Razi's #5–10 were dropped presumably as being merely semantic variations or already implicit in the four items he kept.

b. Essential necessity¹¹ excludes any [type of] composition; that is, anything that is necessary in its essence will not be a composite structure. This is because

1. a composite structure implicitly has need for something other than itself, because it needs parts that are differentiated from the composite structure; and

2. anything that is necessary in its essence implicitly has no need for anything else, so, between the two concomitant inferences, namely, being self-sufficient and having need, there would be a contradiction. The contradiction between the two concomitant inferences is implied by the contradiction between the two premises, thus a necessary reality in its essence would reject being a composite structure.

An objection might be raised that this position would prove [only] that a necessary reality in its essence would reject being a composite structure in external reality, but it would not prove that [the necessary reality] would reject being a composite structure within the intellect; and therefore, why would it not be admissible that a necessary reality in its essence be a composite structure within the intellect?

Let no one say that it would not be admissible for it to be a composite structure within the intellect, because, if a composite structure within the intellect corresponds with what is external then it would imply that there was external composition, but if it should be otherwise, then it would imply [a state of] foolish ignorance.

Indeed, our position is that we do not grant that if a composite structure within the intellect does not correspond with what is external then it would imply a [state of] foolish ignorance; it would imply a state of foolish ignorance only if it should be judged that there was an external composite structure, when [in fact] there was none in the external; but such a case would not be allowable [in argument]. To form a composite structure intellectually does not require a judgment of the intellect that the composite structure would be external; MS 60a and, if it should be otherwise, then implicitly it would be a case of foolish ignorance. Rather, it does require that the structure would be composed in the intellect. So then it would be admissible that there be a structure composed in the intellect and not in the external, and therefore, the intellect would not judge that there was a composite structure in the external.

¹¹ [al-wājib al-dhātī].

Let no one say that, if a composite structure should be realized in the intellect apart from the external reality, then it would imply that two intellectual forms had been applied to [one] simple entity. This would be impossible, since the application of one of the two forms L 118 to the simple entity would prevent the application of the other to it. Our position is that [the case described] would be implied only on the assumption that each of the forms had been applied to this [particular] thing. But the case is not so, for the sum total of the two forms has been applied to the simple entity, not each of the two, and so this [latter case] would not be impossible.

The reply [to the foregoing possible objection] is that the Necessary Existent has no commonality at all in the quiddity of even one thing of all things that are, because the quiddity of everything other than [God] Himself necessarily has the possibility of existence.

Thus, if the Necessary Existent should have a commonality with an entity other than Himself in the quiddity of that entity, then the implication would be that [God Most High] was [merely] a possible reality! "O may He be exalted most highly above all that evil-doers will say", [this being Isfahani's exclamation paraphrase of Qur'an 17:43].¹² And, if He should not have a commonality with anything other than Himself in any of the various quiddities, then there would be no need in [one's] intellect for Him to be separated from any other than Himself by an essential separation, and thus, He would not be a composite structure within the intellect.

Let no one ask, "Why would it not be admissible that there be a composite structure of two equal entities within the intellect, and the totality of these two would correspond to one simple entity externally?" Indeed, our position is that the intellect,—while it would be thinking about the essence of Him [the Necessary Existent], that is, [about His] existence,¹³—would have no need for two entities that give [the Necessary Existent's essence] subsistence, since there would be no commonality¹⁴ with any other in any essence,¹⁵ and He¹⁶ would have no part in the external, such that there would be no need,

¹² [ta'āla' 'ammā yaqūl al-ḡālimūn 'ulūwan kabīran].

¹³ The MS inserts here, "particular" [al-khāṣṣ].

¹⁴ MS gl: I.e., on the part of the Necessary Existent [al-wājib].

¹⁵ MS gl: [I.e.], which would be [its] existence.

¹⁶ MS gl: I.e., the Necessary Existent.

while thinking about Him, for the removal of two forms from the two parts,¹⁷ since it would be absolutely¹⁸ impossible to make a composite structure of Him¹⁹ within the intellect.

c. If it should be assumed that necessity in its essence would be an established 'certainty', then [that certainty] would not be an addition to its essence,²⁰ because if it should be an addition to its essence, then [that certainty] would be a 'characteristic' of [the essence], and [the certainty] would stand in need of the essence, which would be something other than [the certainty] itself, and thus [the certainty] would be a possible reality and would have a cause.

Further, if the cause [of the certainty] should be something other than the essence [of the necessity], then it would be admissible that the essence be separated from the necessity, and thus it would imply that the essence would be a possible reality. But if the cause [of the certainty] should be the [necessity's] 'essence', MS 60b then this would imply either that the 'essence' would take precedence by reason of necessity and existence over the 'necessity', and this would imply an infinite series argument, or that the entity [i.e., the 'necessity'] would take precedence over itself; and both these alternatives would be impossible.

The theory that 'necessity' is a relationship between its essence and existence, and that the relationship between these two entities has need for them both, so that [the relationship] retards behind them both and becomes an addition to the essence, excludes the logical objective referred to, namely, that abstract 'necessity' in its essence would be an 'established certainty'. In other words, for abstract necessity in its essence to be a 'relationship' excludes its being an 'established certainty', that is, an existent T 55 externally, because a 'relationship' is [merely] an intellectual entity.²¹

d. Necessity in itself may not be a commonality between two entities, that is, there may not be [present] within existence two [beings

¹⁷ L gl: . . . [I.e.], so that there would be an intellectual composite.

¹⁸ T: [qaf'an]; others: [muṭlaqan].

¹⁹ Gloss in L varies slightly in the MS: i.e., 'absolutely' is a more general [exclusion from composition] than if it were [stated as] 'from two equal entities', or any other than the two.

²⁰ MS gl: But rather, it would be identical to it because of the impossibility of there being parts [in the essence].

²¹ [I.e., it is so] in our view; thus, your argument [i.e., that of a presumed disputant] would not necessarily be in opposition to ours.

that are] necessary existents in themselves. This will be taken up [more fully] in Book 2 on Realities Divine. L 119

[Baydawi's] statement, "Thus, if a necessary reality should be characterized by attributes", is the answer to an assumed interpolation. A full statement of the interpolation would be that if 'necessity' in itself should not have commonality between any two entities then it would imply that the necessary reality in itself would not be characterized by attributes that would be an addition to its essence. This is because if it should be characterized by attributes that were an addition to its essence, then these attributes would be possible realities, and it would be admissible that they pass away from the essence, but this would be impossible.²²

A full statement of the answer [to the assumed interpolation] would be that if the necessary reality should be characterized by attributes, then necessity in itself would be due to the essence alone apart from the attributes, and the attributes would be necessary, not on account of themselves but on account of the essence [of the necessary reality]. Their passing away would be impossible because the passing away of their necessary cause would be impossible, since it is the essence that is a necessary reality in itself.

Baydawi said:

L 119, T 55

3. *The distinguishing properties of possibility*

[The distinguishing properties of possibility are also four in number, but each one is given a separate full discussion, as follows]:

a. [The first distinguishing property is that] 'Possibility' makes [a possible reality] have need for a cause,²³ because when the two terms

²² MS gl: Because necessity may not be a commonality between two entities.

²³ From earlier writers F.D. Razi gleaned information on the distinguishing properties for 'possibility', material that he set up as a list of six discrete items in his *Compendium of thought (Muhassal)*, pp. 71–81. Baydawi's analysis reduced this number to four. Baydawi's #1 is a more lucid restatement of Razi's #5 which is: "The cause of the need for an effective cause is the [possible reality's] 'possibility', not [its] temporality."

Razi states his #1 item thus: "A possible reality according to its essence is that which may not be inferred [either] from a premise of its existence or from a premise of its nonexistence . . ." This cannot be easily correlated with any on Baydawi's list, and so is left by itself.

[i.e., existence and nonexistence] of a possible reality are equally balanced, then [the possible reality's] existence would be impossible unless there should be an agent of preference [i.e., a cause, to give preference either to the existence or the nonexistence].

Knowledge of this [fact] is intuitive, and [an understanding of] the difference between it and our saying, "One is half of two", and [similar axioms], belongs to one who is familiar with the subject.

Various objections have been raised as follows:

1. The need is not an established certainty. If it were otherwise, then

a) [the need] would be a possible reality because it is an attribute of a possible reality; and thus there would be another need, and the argument would be an infinite series; or,

b) [the need] would be antecedent to its substrate being characterized, to which it is related [as attribute] because of the need's being antecedent to the causal action, that [in turn] is antecedent to the existence of the effect, all of which would be impossible.

2. Nor is the effective causality [i.e., for the need, an established certainty]. If it should exist, then it would be a possible reality because

a) it would be an attribute of the effective cause, and

b) it would be a relationship between the effective cause and the effect. Thus, the case would require an effective cause having another effective causality, so the argument would be an infinite series.

3. Moreover, the causal action in the state of existence would result in the production of something that already exists, and in the state of nonexistence [it would result in] the joining together of two contraries.

4. Furthermore, if existence [itself], because of its own possibility, should be in need of an agent of preference, then also non-existence would be in need; but that is pure negation, so it would not be an effect.

The answer to the first three [objections] are as follows:

1.-a, 2.-a. The lack of a need and of effective causality does not imply that the essence [of possibility] would not have need or would not be an effective cause. In the same way, the statement that nonexistence is not an entity having established certainty [externally] does not imply that it is not a nonexistent entity.

3.-a. What is meant by the causal action is that the existence of the effective cause requires the existence of the effect to follow.

Moreover, the knowledge that one thing exerts causal action upon another thing, or [that the first thing] has need of some [other] thing is a matter of intuitive understanding that does not admit [the use of] a doubtful analogy.

4.-a. If nonexistence should not be described as having possibility then there would be no ambiguity, while if [nonexistence] should be described as having [possibility], then admissibly it would be an effect, and the effective cause of it would be in accordance with what has been said previously about the lack of a causal factor for existence.²⁴

On account of the difficulty of this L 120 ambiguity, a theory has been held that the causal factor for the need [recognized in possibility] is [due to the fact of its] temporal origination, or, possibility together with it. But the case is not so, because [possibility] is an attribute of existence that comes after the causal action [preferring existence], which in turn comes after the need [for the action]. Therefore, 'possibility' would be neither the causal factor [itself] of [its own] need,²⁵ nor would it be a part of [the causal factor], nor would it be a condition for the causality of its causal factor.

Isfahani says:

L 120, T 55, MS 60b

3. *The distinguishing properties of possibility*

[The distinguishing properties of possibility are also four in number, but each one is given a separate full discussion, as follows]:

a. [The first distinguishing property is that] 'Possibility' makes a 'possible reality' have need for a cause.²⁶ This is true of a possible reality because when each of its two terms, existence²⁷ and nonexistence, are equally balanced in their relation to its essence, then [the possible reality's] existence is impossible except through an agent of preference. Thus, in a situation where its existence is in the balance, a possible reality has need for an agent of preference who can

²⁴ Cf. Bk. 1, Sect. 1, Ch. 2, Topic 3, Subtopic 2, with reference to the special case of the Necessary Existent.

²⁵ In the preceding clause, the unwritten antecedents have been substituted for the relative pronouns ['it' and 'it'] in the subject and predicate.

²⁶ L, T and MS Garrett 989Ha read, [al-sabab]; the MS omits the definite article.

²⁷ L: Misspelled in L as [wujūb].

cause the preponderance [in the balance] to be its existence over its nonexistence.

An understanding of this²⁸ is intuitive, and it does not need demonstration. Every intelligent person who forms a conception of a possible reality²⁹ MS 61a and of the need [for a cause] will judge by inherent necessity that [the possible reality] stands in need of an agent to give it the preference.

The author's sentence, "[An understanding of] the difference between it and our saying, 'One is half of two', and [similar axioms], belongs to one familiar with the subject", is a reference to the answer to an assumed interpolation. A full statement of the interpolation would be that when we present this proposition³⁰ to our intellect we find a discrepancy between [the proposition] and our saying that one is half of two, and the like, because the former contains an obscurity in comparison to the latter. The discrepancy between the two is in the obscurity, and [it becomes] obvious that the former is not [merely] a matter of intuition.³¹

A full statement of the reply to the point that the author had set forth would be that a discrepancy may occur among things that are intuitive, in their clarity and obscurity, due to one's familiarity or nonfamiliarity with them. Familiarity with some intuitive things and association with them will induce increased clarity, while the lack of such familiar association may result in obscurity.

It would be preferable to say that there may be some obscurity in the judgmental assent that is given to intuitively understood things, and that [obscurity] would be due to [some] obscurity in the conceptions [that are in the process of] being formulated [from direct perceptions] and that then move into [the judgmental process]. But some obscurity of judgmental assent due to obscurity in [newly formulated] conceptions would not diminish the fact that it is intuitive. Indeed, intuitive judgmental assent may even depend upon formulated conceptions that are [rationally] acquired.

²⁸ MS gl: I.e., [an intuitive understanding of] the impossibility of there being a preponderance [between existence and nonexistence] without an agent to give the preference [imtinā' al-tarajjuh min ghayr murajjih].

²⁹ MS gl: I.e., the equality of its two terms in relation to its essence.

³⁰ MS gl: I.e., [Baydawi's] statement that [abstract] possibility makes a possible reality to be in need of a cause.

³¹ Because of the impossibility for discrepancy [imtinā' al-tafāwut] in intuitive matters.

Objection—for four reasons—has been raised against the theory that, when a possible reality is in the balance between its own existence and nonexistence, it is then in need of an effective cause.

1. [The first reason for the objection is that] the need [arising from abstract possibility] is not a matter of established certainty, and if it should not be a certainty, then a possible reality would not have need for an agent of preference.

a) Regarding the need not being a matter of established certainty, two points are given:

1) Because if the need should be L 121 an established certainty then it would be a possibility, because the need would be an attribute of a possible reality, and the attribute of a possible reality would be a possibility. And if it should be a possibility, then it would have another need, since every possible reality has need for an effective cause. Then the discussion would move to the need for the need, and the argument would be an infinite series.

2) And because if the need should be an established certainty, then it would take precedence [in existence] over its own substrate being described, to which the need is related; that is, [the need] would have precedence over the possible reality characterized by the need, because the need [itself] would have preceded the causal action T 56 of the effective cause upon the possible reality, which in turn would have preceded the existence of the effect, namely, the possible reality [itself]; but [such a case as] this would be impossible.

b) Regarding a case where if the need should be nonexistent, then the possible reality would have no MS 61b need for an effective cause, [that case would be for the following reasons]:

1) Because, if the possible reality should have need,³² then it would be characterized by the need, that is, the need would be an established certainty for the possible reality; and the need being a certainty for the possible reality would imply that [the need] was a certainty in itself, since the need being a certainty for the possible reality is more particular [in reference] than the certainty of the need in itself, and the truth of a more particular [proposition] implies the truth of the more general one.

³² MS gl: Assuming that the need [at this point] would be nonexistent.

2) And because, if the need should not be an established certainty, then it would not need an effective cause, and thus the possible reality would not have need for an effective cause, since, if an attribute has no need for an effective cause, then the substrate of its description would not have need for it.

3) And because, if the need should be nonexistent, then there would be no causal factor for it, and thus the possibility would not be a causal factor for the need, and thus the possible reality would not have need for an effective cause.

2. The second reason [for the objection] is that, if the possible reality should have need for an effective cause, then the effective cause would be characterized by effective causality; but this conclusion is false, [for these reasons]:

a) Because the effective causality would not be an established certainty, since if it should have existence [i.e., within the intellect] then it would be a possibility, because effective causality is an attribute of the effective cause, and an attribute would be a possibility due to its need for its substrate being described, which is something other than [the possibility].

b) And because the effective causality would be a relationship between the effective cause and the effect, and a relationship has need of the two entities being related; and so, if the effective causality should be a possibility, then it would call for an effective cause having another effective causality, and the discussion then would move to that [other effective causality] and an infinite series would be implicit.

3. [The third reason for the objection is that] if the possible reality should have need for an effective cause, then the causal action of the effective cause upon the possible reality would result either in

a) the state of the possible reality's existence, so there would be the production of what already exists, which would be impossible, or in

b) the state of its nonexistence, and this would imply that two contraries would be joined together.³³

³³ MS gl: That is because the existence of the effect together with the causal action would not differ from [the current state] at all. It would be as when the process of smashing is [considered] together with the act of smashing, and [the state of] existence is [considered] together with the action of bringing into existence.

4. [The fourth reason for the objection is that] if a possible reality should have need for an agent of preference for its existence, because of its own [state of] possibility, then it also would have need for an agent of preference for its nonexistence, because of its own [state of] possibility. But L 122 nonexistence is pure negation, and so it would not be the effect of an effective cause.

1.-a, 2.-a. The answer to the first three reasons of the objection,—which are the points that indicate that neither the need nor the effective causality are certainties, two of them³⁴ indicating that the need is not a certainty, and one of them³⁵ [indicating] that the effective causality is not a certainty,—is that the nonexistence of both the need and the effective causality does not imply that the essence [of a given factor] would not have need and [would not] be an effective cause; that is, [it does not imply] that the essence of the possible reality would not have need, and that the essence of the effective cause [would not be] an effective cause. MS 62a

Indeed, the fact that the attribute³⁶ is nonexistent does not imply that the entity itself would not be described by [the attribute], just as the doctrine that nonexistence is not a matter of [external] certainty does not logically require that the entity itself would not be nonexistent.

The truth is that each one, the need and the effective causality, is an [objective] matter of [intellectual] consideration, and thus each of the two may be an intelligible entity,³⁷ in consideration of its essence, upon which the intellect reasons logically and considers whether it be a possible reality or an existent entity.

Or, each one [of the two] may be an instrument for an intelligent person [to use] while thinking. The scholar does not take it as an object to think about, but rather by its means he will think logically about matters in which it can serve as an instrument of study.

[The scholar] will learn, by the instrumentality of the 'need', that

When it is assumed that causal action would be within existence, I mean, the bringing into existence would take place only in the state of nonexistence, then the existence of the effect would also be within that state, and thus it would be a coming together of the effect's existence and its nonexistence. [From the *Mawqif* of 'Adud al-Din Ijī.]

³⁴ I.e., objection #1, subdivisions a) and b).

³⁵ I.e., objection #2.

³⁶ MS gl: This being the need, and the effective causality.

³⁷ [ma'qūlan].

the state of a possible reality consists in how its existence comes to preponderate [in the balance] over its nonexistence, and that by this consideration [this state] is constituted a need of the possible reality. Thus, having the thought in mind that a possible reality is a balanced equality of two terms because of its possibility will entail the requirement that a factor should be established as a certainty within the intellect, and this factor is the 'need'.

[The scholar will learn], moreover, by [the instrumentality of] the 'effective causality', the state of the effective cause when he thinks about the issue of the effect from it. Thus, having that [thought] in mind entails the requirement that [another] factor should be established as a certainty within the intellect, and this factor is the 'effective causality'.

In summary, if the intellect should reason logically by means of the 'need' and the 'effective causality' [both as instruments] about the states of the possible reality and the effective cause, then, with this consideration, there would be a need for the possible reality and a causal action for the effective cause. Both of them would not be described as being either a possible reality or not a possible reality; and so, with this consideration, the need would not have another need, nor would the effective causality have another effective causality.

However, if the intellect should look to them both not in order to observe by their means the condition of some other entity, but rather, [the intellect] should look to them both in terms of their essences, then, they both would be intelligibles and possible realities; and thus, the 'need' [as object] would have another need [for the instrumental function], and the 'effective causality' [as object] would have another effective causality [for the instrumental function]. The argument would not be an infinite series implicitly, because an infinite series would cease when the intellect's consideration of this point would cease.

3.-a. The answer to the "fourth" reason,—which [actually] is the third [reason for the] objection [in Baydawi's text],—is that the meaning intended by 'causal action' is that the existence of the effective cause would require the existence of the effect to follow, not that the effective cause would produce the existence of the effect. Thus, the statement of reiteration that was set forth³⁸ would not be

³⁸ MS gl: Where it is said that the causal action of the effective cause would

right, because it is based on the idea that the effective cause would produce the effect.

An objection could be raised that, L 123 if the meaning intended by 'the requirement to follow' should be 'the coming into existence of the effect', then the statement of reiteration that was set forth would be right and the objection would not collapse.

But, if the meaning intended by it should be that 'the coming into existence of the effect' implies 'the existence of the effective cause', then the implication would not be that MS 62b the effective cause would have a causal action upon the effect.³⁹ If something else should be meant, then let [the objector] make it clear, so that first we may form a conception of it, then second we may take it up for discussion.

It would be more correct if it were stated in answering [the third reason] that, if the intended meaning of "the state of the existence of the effect" should be 'during [the process of coming into] its existence', then we would prefer that it be stated as, "the causal action of the effective cause would be during the [process of coming into] existence of the effect", and from this there would be no implication of 'producing something [already] existing'.

A case of 'producing something [already] existing' would be implied only if [the effective cause's] causal action upon [the effect] should take place after [attainment of the effect's] existence; but as for [its happening] during the [process of [the effect's] coming into] existence, then no, [there would be no such implication]. Indeed, it is not impossible for the causal action of the effective cause to take place upon the effect⁴⁰ during the [process of coming into] existence of the effect, because the causal factor with its effect has this characteristic, namely, its causal action upon [the effect] is during the [process of coming into] existence of the effect.

result in either the state of existence or the state of nonexistence. [Cf. Isfahani's expansion of Baydawi's third reason for the objection above.]

³⁹ The last phrase ["upon the effect"] is added by reading with the MS and MS Garrett 989Ha. L and T omit the last phrase.

⁴⁰ MS gl: Because occurrence of the effect together with the causal action would be a single event as to its duration. And that would be "to produce something existing" by this manner of production; and there would be no impossibility in it [Li-anna huṣṭīl al-athar ma'a al-ta'thīr wāḥid zamānan wa-dhālika taḥṣīl al-ḥāṣil bi-hādhā al-taḥṣīl wa-lā istiḥālāh fīhi]. [From the *Sharḥ Mawāqif*], al-Sayyid al-Sharīf al-Jurjānī's commentary on Ijī's *al-Mawāqif fī 'Ilm al-Kalam*].

But, if the objector should mean by "the state of the existence of the effect" the 'close association' of the existence of the effect with the existence of the effective cause in its essence,—that is, the 'togetherness' of the two in essence,—then that would be impossible. The existence of the effect cannot possibly be together simultaneously with the existence of the cause in the essence. Indeed, the effect retards in its essence after the cause, so how could it be simultaneous with it in its essence? Likewise, the nonexistence T 57 of the effect retards after the nonexistence of the cause in its essence. Thus, the effective cause exerts causal action upon the effect, but not from the standpoint of its being an existent or a nonexistent.

Some of the Mutakallimun hold⁴¹ that the effective cause exerts its causal action at the moment when the effect becomes a temporal phenomenon, and so this occasion would be neither during its existence nor during its nonexistence.

So, if an objection should be raised that on this basis there would be the certainty of an intermediate factor between existence and nonexistence,⁴² this being impossible,⁴³ then the answer [to this objection] would be that we are not saying that a quiddity would have any duration period other than the duration of existence or of nonexistence, such that it would imply [the existence of] an intermediate factor. But rather, we hold that the quiddity from the standpoint of its own identity is something other than the quiddity as an 'existent' or the quiddity as a 'nonexistent', even though it would not be free from one or the other of them. The effective cause exerts its causal action only upon the 'quiddity in itself', not upon the quiddity as an 'existent' or as a 'nonexistent', the 'quiddity in itself' being different from the quiddity 'as existent' or 'as nonexistent', even though it is not free from one or the other of them.

Thus, if an objection should be raised that, if the quiddity should not be free from one or other of them, then the causal action of the effective cause would not be free from one or the other of the two states [i.e., of existence or nonexistence], and so, a difficulty would

⁴¹ MS gl: In answer to the third reason for the objection.

⁴² Thus [the existence of] an intermediate [factor] would be implied conclusively. [From al-Sayyid al-Sharif al-Jurjani, probably his glosses on Isfahani's commentary on Baydawi here.]

⁴³ MS gl: Because the confinement within these two entities would be intuitively known.

be implicit, then the answer [to this objection] would be that although the causal action would not be free from one or the other of the two states,⁴⁴ nevertheless the causal action would be upon the quiddity that is closely accompanied MS 63a by one or the other of the two states, not with the quiddity as an existent or as a nonexistent.

A further answer L 124 to the 'three' reasons for the objection is by way of a summary contradiction, namely, that the knowledge that a given thing exerts a causal action upon another thing, and that a given thing has need for another thing, [these together] are a matter of intuitive understanding that does not accept a doubtful analogy.

An objector could say that his side [in the dispute] does not grant that the knowledge that a given thing exerts a causal action upon another thing, and that a given thing has need for another thing, [together] would be a matter of intuitive understanding. If it should be a matter of intuitive understanding, then it would correspond to what is actual. But the conclusion is false, for its contrary is an established certainty in actuality, according to the demonstration of decisive proof.

Let no one say that we [i.e., Isfahani's side] "do not grant" that the proof you have set forth is decisive enough to imply that [your position in] contradiction would then be established in actuality. But rather, [we say,] "What you have presented is a fallacy." Our position in that case, is that there is a need to set forth clearly the objector's error, in order to establish that it is a fallacy having no usefulness in establishing his contrary position.

4.-a. The answer to the ["fifth"] reason—that is, [actually] the fourth reason for the objection in Baydawi's text⁴⁵—is that, if the possible reality's nonexistence should not be characterized by a preference [i.e., in the balance between existence and nonexistence], then

⁴⁴ Gloss in MS and L 123: As a result the causal action would not be a condition of existence nor a condition of nonexistence, but it would be during the duration of existence; any impossibility would be implied only by the former. [From al-Sayyid al-Sharif al-Jurjani's glosses upon Isfahani's work here.]

⁴⁵ The discrepancy in the numbering of replies to the reasons set for the objection probably are due to the complexity of Isfahani's expansion of reasons #'s 1-2, the replies to which he evidently considered to comprise "three" points. Changes in a manuscript in ink being made with difficulty, Isfahani explains his replies #'s 4-5 as covering Baydawi's #'s 3-4.

there would be no difficulty, for we have said⁴⁶ that a preference of one of the two terms [in the balance] of the possible reality would require an agent of preference. So, if no preference should materialize for [the possible reality], then [the situation] does not call for an agent of preference. But, if the possible reality's nonexistence should be characterized by a preference, then we do not grant the impossibility of its being an effect. Indeed, if a possible reality's nonexistence should be characterized by a preference [in the balance], then it would be admissible that it be an effect, and that the effective cause for it would be the absence of a causal factor for existence, in accordance with the interpretation that has preceded, namely, that what is meant by 'causal action' is the requirement by the effective cause that an effect should follow.

Thus, if the effective cause should be an effective cause for existence, then the existence of the effective cause would be followed by the existence of the effect; and, if [the effective cause] should be an effective cause for nonexistence, then the nonexistence of the effective cause would be followed by the nonexistence of the effect. That is, the effective cause, in the case of the possible reality's nonexistence, would be the absence of a cause for the possible reality's existence, in the sense that the absence of a cause for the possible reality's existence would require the possible reality's nonexistence to follow.

The purport of [Baydawi's] statement, "in accordance with the interpretation that has preceded",—[i.e.], in accordance with what has preceded in the chapter on 'existence', to the effect that 'abstraction', being nonexistential, has need for the absence of any causal factor for qualification by an accident,—is not correct.

In the first place, this is because on the same occasion he did not set forth an explanation of the 'causal action'; and in the second place, it is because doubt was not repelled merely by his statement, "that abstraction, being nonexistential, has need for the absence of any causal factor for qualification by an accident." This is because, in that case, it could be said that the causal action of the absence of a cause for its existence⁴⁷ would be in the absence of the possible

⁴⁶ Reading with L, T, and MS Garrett 989Ha. The MS has the verb in the present tense.

The MS further reads [in taḥaqqāqat rujḥān].

⁴⁷ MS gl: I.e., the existence of the possible reality.

reality, if it should be [either] the state of the possible reality's non-existence, which would imply the producing of something already existing, MS 63b or, the state of [the possible reality's] existence, which would imply the joining together of two opposites.

And then there would be the need to interpret the 'causal action' as being the requirement for a proper sequence [of cause and effect], in order to repel any doubt.

So, if an objection should be raised,—that the preceding interpretation means that what is meant by 'causal action' is that the existence of an effective cause requires that it be followed by the existence L 125 of an effect, not that the absence of an effective cause requires that it be followed by the absence of an effect,—then the answer to this [objection] is that what is meant by 'causal action', in the case of existence, is that the existence of an effective cause requires that it be followed by the existence of an effect; and thus, from this [clarification] the understanding is gained⁴⁸ that [what is meant by] 'causal action', in the case of nonexistence, is that the absence of an effective cause requires that it be followed by the absence of a possible reality.

In some [manuscript] copies [of Baydawi's *Tawālī' al-Anwār*] [it is stated] that if the nonexistence of the possible reality should not be characterized by possibility, then there would be no difficulty.⁴⁹ The full statement of this is that if nonexistence should not be characterized by possibility, then it would not have need for an agent of preference [to give it preference in the balance]. [This is] because it is only 'existence' that needs an agent of preference for its possibility, since the causal factor in the need for an agent of preference is the possibility.

Thus, if the 'nonexistence' should not be characterized by possibility, then no cause for the need of an agent of preference would become realized within [the nonexistence], so it would have no need

⁴⁸ MS: [wa-yu'lam minhu]; other texts: [fa-'ulim minhu].

⁴⁹ Isfahani refers to the text of Baydawi's reply to the fourth reason for the objection. In Baydawi's text both L and T read, [anna al-'adam in lam yūṣaf bil-imkān fa-lā ishkal]. MS Garrett 283B and MS Garrett 989Hb [for Baydawi's text only] differ in one word, reading, "by a preponderance in the balance" [bil-rujḥān]. Isfahani, in his discussion of the actual fourth reason, says in a paraphrase, "if the nonexistence of the possible reality should not be characterized [yuttaṣaf] by a preponderance in the balance . . ."

for one. But if the 'nonexistence' should be characterized by possibility, then admissibly that [possibility] would be the effect of an effective cause; and the 'effective cause', in [such a case of] the 'nonexistence' of a possible reality, would be the 'absence' of the effective cause of its existence, [all] in a proper sequence [of cause and effect].

You have learned what would refute the requirement of a proper sequence, that if⁵⁰ someone—by this requirement that the absence of an effective cause would be followed by the absence of an effect—should intend to abolish the effect, then the previously mentioned statement of reiteration would be right, and the objection would stand. But if [the disputant] should intend by this [requirement] that the absence of an effect would imply the absence of an effective cause, then there would be no implication that the effective cause would have any causal action upon the effect. And if [the disputant] should intend something else, then let him give an explanation so that first we may form a conception of it,⁵¹ and then secondly we shall discuss it.

The right thing would be to say a) that the nonexistence of a possible reality whose two terms were equal [in the balance] would not be a pure negation, and b) that the equality between the existence of a possible reality and its nonexistence would have no being except in the intellect, and c) that, since the absence of an effective cause has more significance within the intellect than the absence of an effect, it would be admissible for the nonexistence of the effect to be caused by the absence of an effective cause within the intellect.

Furthermore, because of the difficulty of this problem, namely, that by inherent necessity nonexistence has need for an effective cause when assuming that possibility is the causal factor of the need, some of the Mutakallimun held the position that the cause of a T 58 possible reality's need was its 'temporal nature'. Some [others of them] said that the cause of a possible reality's need was the total of the possibility and the temporal nature. MS 64a And another group of them took the position that the cause of the need would be the possibility conditioned by the temporality.

⁵⁰ The scribe of L omitted "if" here.

⁵¹ L and the MS insert [hatta' natasawwar] in the text, while MS Garrett 989Ha puts it in a gloss, and T omits it.

But the case is not of this sort. 'Temporality' is an attribute that is an addition to existence, since 'temporality' is a term expressing the fact that existence was preceded by nonexistence, so it is a modality⁵² of existence. Thus, it is a descriptive term for the existence that is subsequent to the causal action. That is, [it is] the bringing into existence that retards after the need for an effective cause, that [in turn] retards after the cause of the need. Thus, 'temporality' retards after the cause of the need by some degrees; so the temporality can be neither a cause for the need, L 126 nor a part of the cause for the need, nor a condition for the cause of the need.

An objection has been raised that 'temporality' is not an attribute of existence; indeed, it is an expression for the exit from nonexistence into existence. So, it would not retard after existence, but rather, it would precede existence. The answer to this [objection] is that it is not admissible for 'temporality' to be an expression for the exit from nonexistence to existence. If the case should be otherwise, then an intermediate factor would be established between nonexistence and existence, because an exit from nonexistence to existence would take place after nonexistence and before existence. And, if it should be granted that 'temporality' would be [merely] an expression for the exit from nonexistence to existence so that it would precede existence, still it would not be admissible for 'temporality' to be either the cause of the need, or a part of it, or a condition for it. This is because temporality, in this sense, would retard after the causal action of the effective cause, that in turn would retard after the need. Thus, temporality could be neither a cause for [the need], nor a part of it, nor a condition of it, since whatever retards after a given thing may not be any part of it at all.

An objection to this [answer] has been raised, that 'possibility' would be an attribute of a possible reality, by analogy with its 'existence', and thus, it would retard after [its] 'existence'. So, it would not be a causal factor for the need for an effective cause that precedes the 'possibility' to some extent. And the answer [to this latter objection] is that 'possibility' is an attribute of a possible reality's 'quiddity in itself', without consideration as to its existence or its nonexistence; and therefore, it would not retard after the existence of the quiddity externally. But rather, making the 'possibility' an

⁵² [kayfiyah].

accidental quality of the [possible reality's] 'quiddity in itself' would depend upon a consideration of existence and nonexistence [both as absolutes], not upon a consideration of [the quiddity's particular] existence⁵³ or of its [particular] nonexistence.⁵⁴

An objection could be raised that 'possibility' would be the attribute of a possible reality, and an attribute in existence would come after the [subject-substrate] described, so possibility would come after the existence of a possible reality. Therefore, [the possibility, in itself] would not be a causal factor of the need—[that is, for an effective cause for the possible reality]—that would precede [the possibility, as attribute] to some degrees in extent. The answer [to this objection] is that 'possibility' MS 64b is an intellectual entity, and so, it would not come after the quiddity in external existence.

Baydawi said:

L 126, T 58

b. The second [distinguishing property of possibility] is that neither one of [a possible reality's] two alternative states [i.e., existence and nonexistence] has any priority [of preference] due to its essence.⁵⁵ This is because, [if there should be a case where one of the two states had priority], then in that case,

1. if the occurrence of the other state should become possible, then its occurrence either would be by reason of a cause,—and so the [first state's] priority would need to become nonexistent,—or [the occurrence] would not be by reason of a cause; and so, the implication would be that a preference had been received in the balance without an agent of preference, which is impossible. But,

2. if [the occurrence of the other state] should not be possible, then for the one [already] having the priority [the occurrence] would become a necessity.

⁵³ MS gl: On this basis, a given thing would be a possible reality in the state of its nonexistence, and it would not be possible to hold that temporality would be its attribute from this aspect. If it should be otherwise, then the implication would be that it was a temporal phenomenon while in the state of its nonexistence. [From al-Sayyid al-Sharif al-Jurjani's commentary on "M", i.e., Ijī's *Mawaqif*.]

⁵⁴ MS glosses indicate the designations here of 'absolute' and 'particular'.

⁵⁵ Baydawi's #2 is equivalent to Rāzī's #3, which he stated as the heading of a discussion paragraph as follows: "The possible reality by reason of its essence is equally balanced in its two alternative states."

Isfahani says:

L 126, T 58, MS 64b

b. The second distinguishing property of possibility is that neither one of the two alternative states of a possible reality, that is, 'existence' or 'nonexistence', can possibly have priority because of [the possible reality's] essence, [that is, for preference in the balance of existence]. L 127 This is because, in a case where the priority of one of the two states should have been realized because of its essence, then

1. if the occurrence⁵⁶ of the second state should become possible, then it would occur either by reason of a cause, or not by reason of a cause.

a) If the second state should occur by reason of a cause,—and thus the right of priority of the [first] state, that was assumed to have priority as a possible reality because of its essence, would need the cause of the occurrence of the second state to be abolished, and since the occurrence of the second state would be on the assumption of its being by reason of a cause,—the second state would proceed to become the one having priority for preference [in the balance of existence]. If it should be otherwise, then its cause would not be a [genuine] cause.

And, if the second state should gain the priority, then the first state's right of priority would not remain, since the first state's right of priority was dependent upon the absence of a cause for the occurrence of the second state. Thus, the right of priority would not be in the essence [of the first state] because of the inherent necessity of [the right's] dependence upon the absence of a cause for the occurrence of the second state. But,

b) if the second state should occur not by reason of a cause, then the implication would be that it was a preference in the balance [of existence] without any cause [for its preference]. And this would be the worst and most atrocious impossibility for the intellect, to be concerned with a case of preference for one of two equals without an agent of preferral. However,

2. if the occurrence of the second state [of the possibility] should not become possible, then the one [i.e., first state of the 'possibility'] having the priority [for preference in the balance of existence],

⁵⁶ MS gl: [I.e.,] 'actualization' [wuqû'].

would become the 'necessary one'. Therefore, implicitly it would be a transformation from 'possibility' to 'necessity'.

Baydawi said:

L 127, T 58

c. The third distinguishing property of possibility is that a possible reality's existence depends upon an effective cause; [that is,] a possible reality will not be existent as long as its transition [to existence] is not assigned by its effective cause.⁵⁷ That assignment is called 'antecedent necessity'. If [the possible reality] is existent, then while it is existent it will not accept nonexistence, and it is [called] 'consequent necessity'. The two necessities are accidental to the possible reality, and not [part] of its essence.

Isfahani says:

L 127, T 58, MS 64b

c. The third distinguishing property of possibility is that a possible reality's existence depends upon an effective cause; [that is,] a possible reality will not be existent as long as its transition [to existence] is not assigned [to it] by its effective cause, that is, as long as its transition is not necessary. That assignment is called the 'antecedent necessity', because if [the possible reality's] transition should not be made 'necessary' by its effective cause, then it would remain in its state of 'possibility', since there would be no reason for it to be impossible. And if [the possible reality] should remain in its state of possibility, then it would not be preventing the other opposite state, so it would need an agent of 'preferral'.

The argument would not be an infinite series because that would be impossible, so inevitably [the argument] would have to terminate in necessity. This is the 'antecedent necessity', [prior] to the existence of the possible reality, because first it was something necessary, then

⁵⁷ Baydawi's #3 is closely related to but not precisely the same as Razi's #2 which is stated as follows: "The possible reality may not be either existent or non-existent except by reason of an effective cause." Razi says that the possible reality cannot even be conceived as a 'nonexistent' without an effective cause. Baydawi takes up the matter one stage later, "... will not be existent as long as ..."

Razi's #4 can also be related here, but it is too opaquely stated to be useful for easy comprehension. His #4 is: "The preference [for existence] of a possible reality according to its essence is preceded by 'necessity' and is succeeded by 'necessity.'"

it became existent. And when a possible reality becomes existent, then along with it by reason of existence there would be another necessity, because while it is existent its state of existence will not accept nonexistence.⁵⁸ And whatever does not accept nonexistence is a 'necessary reality', and this is the 'consequent necessity', because [this second necessity] comes along with [the necessary reality] after its existence. So, the two necessities, the antecedent and the consequent, MS 65a become accidental qualities of the possible reality. [But this is] not by reason of its essence, but rather, the first [necessity] L 128 is in consideration of the existence of the cause [of the possible reality], and the second [necessity] is in consideration of the existence [of the possible reality] itself.

Baydawi said:

L 128, T 58/59

d. The fourth [distinguishing property of possibility] is that a possible reality needs its effective cause as long as it exists; [that is], a 'possible reality', as long as it remains [in existence], keeps with it the 'need' [for its 'effective cause'],⁵⁹ in order that the abstract 'possibility', that is its 'necessary cause', might [also] remain. Indeed, the abstract 'possibility' is inherently necessary to a 'possible reality'; and if it should be otherwise, it would be admissible that the possible reality be transformed into a 'necessary reality', or into an 'impossibility', and then it would have need for a cause to make it possible.

An objection has been raised that the causal action of an effective cause is either upon something that already exists, but this is impossible, or upon something that is being renewed [constantly], in which case the need would be for [the latter], without regard for anything permanent. In reply [to this objection], our position is that what is meant by the 'causal action' is that the 'effect' would continue as long as its 'effective cause' would continue.

⁵⁸ MS gl: Otherwise, there would be a joining together of two contraries.

⁵⁹ Baydawi's #4 correlates with Razi's #6, which is stated as follows: "As long as the possible reality continues [in existence] it cannot be free from [the need for] its effective cause." Here, Razi presents the item with more clarity than does Baydawi.

Isfahani says:

L 128, T 59, MS 65a

d. The fourth distinguishing property of possibility is that a possible reality needs its effective cause as long as it exists' [that is], a possible reality keeps the need for its effective cause with it in its company as long as [the possible reality] remains [in existence]. The causal factor for the possible reality's need for the effective cause is 'abstract possibility', and as long as the possible reality remains [in existence] the abstract possibility will remain also. Thus, as long as the possible reality remains [in existence], the need for an effective cause will be remaining.

We have stated that the possibility remains as long as the possible reality remains [in existence], only because abstract possibility is inherently necessary for a possible reality. [This is] because

1. if the [abstract] possibility should not be inherently necessary for [the possible reality], then it would be admissible that the possibility be disjoined from the possible reality, and in that case the 'possible reality' would become either a 'necessary reality' or an 'impossibility', and so, a transformation would be implied. Also [it is because]

2. if the [abstract] possibility should not be inherently necessary for the possible reality, then the possible reality would need some cause for its own possibility, and thus the possible reality would not be a 'possible reality' in its essence, but rather, would be either a 'necessary reality' or an 'impossibility'.

An objection has been raised that it is not admissible for a possible reality to need an effective cause as long as it remains [in existence]. This is because if it should need an effective cause as long as it remains, then inevitably, the effective cause either would have a causal action upon the possible reality as long as it remained, or it would not have. If the effective cause should have no causal action upon the possible reality as long as it remained [in existence], then there would be no resulting effect in the situation, on account of the impossibility of obtaining an effect without a causal action. And, if no effect should be obtained from [the effective cause] in this situation, then it would be a case of self-sufficiency instead of a need for the effective cause, so there would be no need [in the possible reality] for the effective cause; but this all would be contrary to the assumption [that the possible reality does have the need]. However,

if the effective cause should have a causal action upon the possible reality as long as it remained [in existence], and [if] the causal action should require that an effect be obtained, then either the effect obtained from it would be the existence that had been obtained previously, and that would be impossible because of the impossibility of obtaining something already obtained, or the effect obtained from it would be a factor that would be renewed constantly, and then the need would be for that factor to be renewed, not for the entity that remained, although the assumption had been that the need would be for an entity that remained. So this [also] would be contrary to the assumption.

[Baydawi] replied [to this objection] that what was meant by the causal action of [the effective cause] as long as [the possible reality] should last was that the duration of the effect would be the same as the duration of its effective cause. Further, there would be no implication either of producing something already produced, or of self-sufficiency [rather than need] in the continuing entity. This reply was based on the interpretation of L 129 the causal action as being in a proper required sequence [of cause and effect]. MS 65b

In truth, it should be stated in [Baydawi's] reply that the effective cause as long as it remained would be producing an effect that would not be the [same] existence that had been present previously, but rather, something renewable that was the continuance of the existence present previously, and that by this continuance it had become the 'remaining feature'. Thus, there would be no implication that [the effective cause's] causal action would not be upon the remaining feature, so as to imply that the argument would be contrary to the assumption. The 'remaining feature' would be the first existence that had been qualified by the attribute of continuity, that is, of permanence.

Therefore, [the effective cause's] action upon a new entity, other than the first existence [by itself], does not imply that its action would be lacking upon the first existence when it was qualified by the attribute of continuity, because the lack of [the effective cause's] action upon the absolute [unmodified] entity⁶⁰ does not require that its causal action be lacking upon the entity as modified.⁶¹

⁶⁰ MS gl: That is, the first existence [alone].

⁶¹ MS gl: That is, the first existence as modified by the continuation.

Baydawi said:

L 129, T 59

4. *Eternity*

Eternity that is past excludes the causal action of a free agent, because [the causal action] would be preceded by an intention which would be accompanied by the absence of an effect; indeed, the intention to bring into existence [something that was already] an existent would be an impossibility.

Now, the philosophers ascribed the universe to the Divine Maker, in spite of their belief in the eternity [of the universe], only because of their belief that [God] in His essence is the Necessary Cause.

The Mutakallimun agreed among themselves to exclude [eternity] from everything except the essence of God Most High and His attributes.

And while the Mu'tazilah denied the eternity of the [divine] attributes, nevertheless [the eternity of the attributes] has been their position, in the sense that they have affirmed as established certainty five attribute-states that have no beginning. These are

- a. [God's own] presence within existence,
- b. [His] living nature,
- c. [His] omniscient nature,
- d. [His] omnipotent nature, and
- e. [His] divine nature,⁶² the last being an attribute-state that Abu Hashim affirmed to exist as
 1. the causal function for the [other] four, and as
 2. the agent of differentiation for the essence [of God].⁶³

⁶² a. [al-mawjūdīyah], b. [al-ḥayyīyah], c. [al-'ālimīyah], d. [al-qādirīyah], e. [al-ulūhiyah].

⁶³ F.D. Razi had included most of these same points in his '*Compendium of thought*' (*Muḥassal*), pp. 82–84. He held that the Mutakallimun and the philosophers differed only in the semantics of their positions regarding the eternity or the temporality of God's action with the world/universe, and he presented insights in support of this judgment.

All parties in the debate were agreeable to making 'eternal entities' derive from God as the eternal Necessary Cause. God was conceived as being active in time as the divine Agent of Free Choice, but it was impossible to agree on deriving 'eternal entities' from the Agent of Free Choice, apparently because of a discontinuity between the disputants' concepts of time and eternity. Razi presents the 'philosophers', without naming any, as holding that the world and time existed in

Isfahani says:

L 129, T 59, MS 65b

4. *Eternity*

Eternity that is past excludes the causal action of an agent of free choice. [This is] because the causal action of an agent of free choice would have been preceded by an intention and a choice. The intention to bring a thing into existence would be accompanied by the lack of an effect, since the intention to bring into existence something already existing would be impossible, as that would be a case of obtaining [the existence of] something that had already been obtained, and that would be impossible.

Now, a nonexistent entity toward which an intention to obtain its existence was being directed, would be a 'temporal phenomenon' because it would originate after having been nonexistent. Thus, the causal action of the [Agent of] free choice would require the temporal origination of an effect, but the past eternity of an effect would exclude its having a temporal origination. Therefore, the past eternity of an effect would exclude the causal action of the Agent of free choice, since whatever would exclude the conclusion would exclude also the premise.

The author's expression, "Now, the philosophers", is the answer to an assumed interpolation, a full statement of the interpolation being that the philosophers, in spite of their belief that the universe is a thing of past eternity, traced its derivation to the divine Maker. Thus, [with them] the past eternity [of the universe] would not exclude the causal action of the Agent [of free choice].⁶⁴ A full statement of the answer is that in spite of their belief L 130 that [the universe] is a thing of past eternity, the philosophers traced the derivation of the universe to the divine Maker only because of their belief that the Maker of the universe was a 'Necessary Cause', not a 'Free Choice [Agent]'. So much so that, if they were to believe that the Maker would be an 'Agent of free choice', then they would

eternity, and thus the Agent of Free Choice would be able to work with them in eternity. However, to the Mutakallimun 'eternal entities' could mean only God with his attributes, thus the world and time were not conceivable as 'eternal entities'.

⁶⁴ The MS supplies [al-mukhtār], for the ['Divine'] Agent of free choice. L and T lack the adjective here.

not have made it admissible that He be a 'Necessary Cause' of the 'eternal universe'.

From this it is clear that [the philosophers] agreed

a. on the admissibility of tracing the derivation of what is from past eternity to the eternal Necessary Cause, and [they agreed]

b. on the impossibility of tracing its derivation to an 'Agent of Free Choice'. However, the philosophers do apply the name,⁶⁵ 'Free Choice [Agent]' to God Most High, but not with the meaning by which MS 66a the Mutakallimun interpret 'choice'.

The Mutakallimun have agreed to exclude 'eternity past' [as a qualifying term] from everything except the essence of God and His attributes.

[Baydawi's] statement, "And while the Mu'tazilah denied the past eternity of the [divine] attributes", refers to the answer to an assumed interpolation. A full statement of this interpolation would be, "You [disputants] have arrogated to your own use the agreement among the Mutakallimun to exclude eternity past from everything except the essence of God Most High and His attributes. There are Mu'tazilah adherents among T 60 the Mutakallimun, and it is [the Mu'tazilah] who reject the past eternity of the [divine] attributes. So, the agreement about the exclusion of eternity past from everything except the essence of God and His attributes is not [by the Mutakallimun]."

Then the answer [to this interpolation] is, "And while the Mu'tazilah denied the eternity of the divine attributes, nevertheless they held to the meaning [of the doctrine], in that the Mu'tazilah affirmed as established certainty the existence of five attribute-states that have no beginning." These are [according to the Mu'tazilah]:

a. [God's] presence within existence,

b. [His] living nature,

c. [His] omniscient nature,

d. [His] omnipotent nature, and

e. [His] divine nature. This last one, His divine nature, is a fifth attribute-state that Abu Hashim affirmed to exist as both the cause of the [other] four attribute-states and as the differentiating factor for [God's] essence. This is because [in Abu Hashim's theory] the essence of the Creator has a commonality with all the other essences

⁶⁵ [al-mukhtār] literally, [Agent of] "whatever is [freely] chosen."

in [the fact of] being an 'essence', but it is differentiated from them by the attribute[-state] of [God's] divinity.

An objection might be raised that the orthodox scholars of the Sunnah do not recognize any certainty of existence for eternal entities, because 'eternal entities' is used as an expression for things that are mutually differentiated from one another⁶⁶ [but] each one of which is an eternal entity; and [the scholars of the Sunnah] hold there is no differentiation [among these entities] except in their essences. Regarding the attributes, they do not hold that there is any differentiation, not even in the attributes when taken together with the essence, according to the position taken by Abu al-Hasan al-Ash'ari.

The Mu'tazilah posit a difference between 'established certainty' and 'existence', and they do not affirm the existence of any eternal entities.⁶⁷ The five attribute-states are the doctrine of Abu Hashim alone. As the causal factor for [God's] presence within existence, [for] His living nature, [for] His omniscience, and [for] His omnipotence [Abu Hashim] proposed a fifth attribute-state, namely, [God's] divine nature.

The Mutakallimun include among their proofs for excluding eternal entities the demonstration that every possible reality is a temporal phenomenon, and that that [demonstration] proves the temporal origination of everything, except God Most High.

Baydawi said:

L 130, T 60

5. *Temporality*

a. 'Temporality' [or, 'temporal origination'], consists in the fact that an 'existence' has been preceded L 131 by 'nonexistence'.

⁶⁶ MS gl: What is meant by 'mutual differentiation' from one another is a differentiation within existence, not within what is understood [by an 'eternal entity'], for that [differentiation] is present in the attributes.

⁶⁷ MS gl: The meaning of an 'eternal entity' is an existent having no beginning. These entities, that [the Mu'tazilah] affirm as established certainties, are not characterized among them as having existence, thus, they would not be eternal, unless the intended meaning of an 'eternal entity' would be an 'established certainty having no beginning',—but this discussion is about the popularly understood meaning.—Moreover, the only one who would infer that [conclusion] is he who has affirmed the attribute-state as an established certainty, apart from other [scholars]. [From al-Sharif Jurjani's commentary on Ijī's *Ma'arifi*.]

b. [Temporality] is also sometimes interpreted as a need [for another agency]⁶⁸ and is [then] called 'essential origination'.

The philosophers held that 'temporality' in the first sense⁶⁹ requires the antecedence of both 'matter' and 'a time period'. [They held that]

1. regarding the first of these, ['matter', the statement is true] because the 'possibility of temporal origination' is present in existence before [temporal origination itself] is [present]; so, there would be a substrate for [the temporal origination] other than some [particular] temporal phenomenon, and that [substrate] would be 'matter'. And,

2. regarding the second of these, ['a time period', the statement is true] because the nonexistence [of the time period] is antecedent to its existence, and this antecedence⁷⁰ is not because of some causal factor, or its essence, or its preeminence, or its place, but it is because of the 'duration of time'.

A reply [to the philosophers] in their first [proposition] is that [abstract] possibility is nonexistential; and [the reply] in their second [proposition] is that the antecedence sometimes would be other than that mentioned, as is the antecedence of 'today' over 'tomorrow'.⁷¹

⁶⁸ In the *Ta'rifat* by al-Sharif al-Jurjani, 'essential origination' is defined as 'the need for another agency', [presumably serving as the agent of preferral for existence].

A.-M. Goichon's compendium, *Lexique de la Langue Philosophique d'Ibn Sina*, p. 62, #134, gives Ibn Sina's definition, "Everything exists through another agency and would not have existence if it had been isolated . . ."

⁶⁹ I.e., as 'temporal origination'. 'Matter' and 'a time period' [māddah wa-muddah].

⁷⁰ [qabliyah] as in A.M. Goichon, *Lexique*, #556.

⁷¹ The philosopher Ibn Rushd [= Averroes, 1126-1198] who lived and worked in Spain, was a contemporary of F.D. Razi. In a famous debate during the generation just preceding both Ibn Rushd and Razi, Abu Hamid al-Ghazali had argued successfully against the philosophers' doctrine that the world/universe had existed in past eternity as an emanation from God. This debate had resulted in a severe public and legal reaction against philosophers in general and their version of the world's existence. Late in his career Ibn Rushd wrote an essay entitled "Discourse on the Harmony between the Belief of the Peripatetics and that of the Mutakallimun among the Learned of Islam [regarding] the Manner of the World's Existence". It exists only in a Hebrew translation. Barry S. Kogan has published an English translation and a study of this essay [In *Islamic Theology and Philosophy: Studies in Honor of George F. Hourani*, Edited by Michael E. Marmura, pp. 203-235, Albany, N.Y.: State University of New York Press, [c1984].]

The fact that it exists only in Hebrew reasonably may be speculated to be caused by the danger from his enemies if it were to be accessible in Arabic. F.D. Razi

Isfahani says:

L 131, T 60, MS 66a

5. *Temporality*

a. 'Temporality' consists in the fact that [a given] 'existence' has been preceded by 'nonexistence'; [this type of temporality] is called 'temporal origination' [literally: 'origination within time duration'].

b. Further, temporality is sometimes interpreted as 'origination because of the need for another agency'; [this type] is called 'essential origination'.⁷²

Every 'possible reality' that is an 'existent' is a temporal phenomenon by 'essential origination', since for every possible reality that is an existent a lack of rightful claim to its existence through its essence precedes MS 66b its [actual] existence, because a possible reality that is an existent is an 'existent because of another agency'. And if the essence of an 'existent because of another agency' should be considered in itself, apart from the 'other agency', then it would not have any rightful claim to existence. [But that is] not [to say] that it would have a rightful claim to 'notexisting',⁷³ since such 'notexisting' also would belong to it by reason of another [agency].

As to [the possible reality's] existence, that [fact of existence] is because of another agency. Thus, its lack of rightful claim to existence is due to its own essence, while its [actual] existence is due to the other agency. Therefore, its lack of rightful claim to existence,—

and Ibn Rushd claim similar motivations for writing on this subject. Ibn Rushd because he was hoping to demonstrate that the diverging views of the Mutakallimun and the philosophers "approximate one another" (Op. cit., p. 207, Kogan, tr.). Razi said that in his view the difference among the disputants over these matters was only a variation in semantics [lafẓī] (*Mukassal*, p. 83). The handling of the subject with such "objective detachment" by discussing the views of the major disputant parties, while it was also a reach for clarity of expression and intent, may be seen as another self-defense feature built into the writings of Ibn Rushd, F.D. Razi and Baydawi on these controversial and reader sensitive topics of 'cosmic creation' versus 'emanation', and 'past (quiet) eternity' versus 'the introduction of time and place into eternity' and 'divine activity within time'. Baydawi's sentences are not only a striving for a precise and concise expression, but also they are a striving for abstract freedom from any material and controversial references which easily could be detonated by skilled enemies into destructive political and religious controversy.

⁷² Temporal origination [hudūthan zamānīyan]; essential origination [hudūthan dhātīyan].

⁷³ [al-lā-wujūd].

this [lack of claim] being a state derived from its essence prior to its [actual] existence, and this [actual existence in turn] being a state derived from the other agency,—would be an antecedence due to the essence. This is because to remove the state of an entity that is on account of its essence logically requires removing its essence. And this is because the state of an entity that is on account of its essence is the concomitant of its essence, and to remove the concomitant logically requires removing the substrate of the concomitant. Thus, to remove the essence logically requires removing the state [of actual existence] that is on account of the other agency.

As to removal of the state [of actual existence] that is on account of the other agency, this does not require necessarily removing the state that is on account of the essence. So, the existence of a possible reality that is an existent by reason of another agency would be preceded by its lack of rightful claim to existence, [and this would be] an 'essential antecedence'. The lack of rightful claim to existence is something other than [actual] existence. Thus, the existence of every possible reality that is existent by reason of another agency would be preceded by something other than [its existence,]⁷⁴ in an 'essential antecedence', and this is 'essential origination'. So, every possible reality that is existent is a temporal phenomenon by 'essential origination'.

The philosophers hold the position that temporality according to the first meaning, namely, the fact that L 132 existence is preceded by nonexistence and is called 'temporal origination', requires the prior existence of both 'matter' and a 'time period'.

1. Regarding the first [of the two main requirements of the philosophers],—namely, the fact that temporal origination requires the prior existence of 'matter',—that [requirement] is because the temporal phenomenon's possibility is existent prior to [the temporal phenomenon's] 'existence'. And that is because every temporal phenomenon, prior to its own [actual] existence, has had being as an entity whose existence was possible. This is because, if prior to its own [actual] existence it had not had being

⁷⁴ MS gl: And that 'other' would be [the possible reality's essential] lack of rightful claim to existence, not its nonexistence, according to the position held, that temporality consists in the fact that existence is preceded by nonexistence. [al-Sharif al-Jurjani, presumably from his glosses on the present commentary by Isfahani.]

a) as something whose existence was ‘possible’, then the implication is that prior to its own [actual] existence it would have had being either

b) as something whose existence was ‘necessary’, or

c) as something whose existence was ‘impossible’,⁷⁵ by the inherent necessity of its limitation to these three [categories]. If one of these [categories] should be excluded, then the implication would be that one of the other two would become the actuality, and this implicitly would be a case of transformation. Thus, the possibility of [the temporal phenomenon’s] existence would be attained prior to its [actual] existence.

That [abstract] ‘possibility’ would not be the power⁷⁶ held over it by the Omnipotent One, since the reason that no power can be held over an ‘impossibility’ is that it is not a ‘possible reality’ in itself, and the reason that what is not an ‘impossibility’ is something over which power MS 67a can be held is that it is a ‘possible reality’ in itself.

So, if the ‘possibility’ should be the power that was held over it by the Omnipotent One, then the case would be one where, if it should be said of some ‘impossibility’ that [the impossibility] was “something over which there was no power because it was not a possible reality in itself”, then an objection might be raised

a) that it was “something over which there was no power” because it was something over which there was no power, or,

b) that it was “not a possible reality in itself” because it was not a possible reality in itself. All this would be sonorous nonsense,⁷⁷ for it has become clear that ‘possibility’ [in the abstract] is something other than the fact that the Omnipotent One would hold power over it.

⁷⁵ Reading with the MS and MS Garrett 989Ha. L and T insert, “or something whose existence was possible”, but this would be redundant because of the preceding conditional clause.

⁷⁶ MS gl: In spite of the estimation held by some of [the philosophers], that the causal factor [ma’na] of ‘a thing’s possibility prior to its [actual] existence’ is the genuine power over it held by the Omnipotent One. [From al-Jurjani’s commentary upon al-Ijī’s *Mawāqif*.]

⁷⁷ Reading with T and the MS as vowelless. L reads: [h-d-r], while the readings of MS Garrett 989Ha and Garrett-Yahuda 4486 may be the same as L, but they are indistinct.

The MS adds a gloss here: ‘That is, a futility’.

Moreover, [abstract] 'possibility' is not an 'intelligible entity' in itself because of the fact that its existence is not in a substrate. But rather, it is an 'adjunctive entity' that a thing has in comparison to its own existence, as the saying goes, "A body has the capability of existing", or, in comparison to one thing becoming another thing, as one might say, "A body has the capability of becoming white."

Thus, 'possibility' would be an T 61 intelligible entity in comparison to another thing, so it would be an adjunctive entity. Now, adjunctive entities are accidental qualities, and accidental qualities have no existence except in their subject-substrates. Thus, a temporal phenomenon would be preceded [in existence] by

a) the 'possibility' of its existence, and by

b) its subject-substrate.⁷⁸ A particular possibility is the potentiality for the subject-substrate in relation to the existence of a particular temporal phenomenon within it, so it would be the potentiality for its [actual] existence.

Now, the subject-substrate is a subject-substrate in comparison to the [abstract] possibility that was an accidental quality within it, and [it is also] a subject-substrate in comparison to a temporal phenomenon, if the temporal phenomenon is an accidental quality; but [the subject-substrate] would be 'matter' in comparison to a temporal phenomenon, if the temporal phenomenon should be 'substance'. Whichever it is, the temporal phenomenon L 133 would be preceded by 'matter', since the subject-substrate would be a body, and a body would be inseparable from 'matter'.

2. Regarding the second [main requirement of the philosophers],—namely, the fact that temporal origination requires the prior existence of 'a time period',—that [requirement] is because the nonexistence of a temporal phenomenon is antecedent [timewise] to its existence. By a process of induction this antecedence is comprised within five classes:

a) Causal antecedence. This class is an antecedence of the effective cause, that is [also] a necessary cause, over its effect. It is, for example, like the antecedence of the movement of a finger over the movement of a ring [on the finger].

b) Natural antecedence. This is a case where one entity is such that another entity has need for it, although the first entity is

⁷⁸ The MS omits the pronominal suffixes after 'existence' and 'subject-substrate'.

not an effective cause that is [also] a necessary cause, for the latter. It is, for example, like the antecedence of one over two.

These two [initial classes] have a commonality in one meaning, namely, an 'antecedence of the essence'. This commonality of meaning is that one entity has need for another in becoming realized, but the second entity does not have need for the first. Thus, the one that has the need is antecedent by reason of its essence. Inevitably then, MS 67b in spite of this fact and by itself alone, the one having the need either will give existence to the one that is needed, or it will not. Thus, the one having the need, by the first consideration would be 'causal antecedence', and by the second consideration it would be 'natural antecedence'.

c) Temporal antecedence. In this case, the one that precedes is antecedent to the one that retards, in an antecedence that does not join together the one coming before with the one coming after, as is, for example, the antecedence of father over son.

d) Functional antecedence. In this case, the functional arrangement is to be considered. The [functional] rank may be perceptible either sensately, as in the antecedence of one who leads [the prayer rite] over one who is led, or [it may be perceptible] intellectually, as in the antecedence of genus over species, if [the comparison] begins from the top.

e) Honorary antecedence. In this case, the antecedence is like that of an advanced scholar over a [beginning] learner.

Thus, among the philosophers, the classes of antecedence are comprised within these five, and their defining limitation is by way of induction.

Now, the antecedence of a temporal phenomenon's nonexistence over its own existence is not

(a) because of causality, nor

(b) because of nature,—since the nonexistence of an entity would not be a cause for its existence, nor

(c) because of honor,—since the nonexistence of an entity would not have honor in relation to its existence, nor

(d) because of function,—since that would be either something according to its position, but a nonexistent temporal phenomenon has neither position nor place, or it would be something according to nature, but there is nothing in the nature of a nonexistent temporal phenomenon that would have antecedence.

Therefore, the antecedence would be because of a 'time duration'; and thus, it is established that temporal origination in the first sense [i.e., that nonexistence precedes the existence of a temporal phenomenon], requires that there be the antecedence of a time duration:

a.-a. To the first [main requirement claimed by the philosophers, namely, that the origination of a temporal phenomenon requires the prior existence of matter], the answer is that [abstract] 'possibility' is nonexistential. Thus, prior to the existence of a temporal phenomenon, ['possibility'] does not require that there be a substrate [for it] present within external existence.

An objection has been raised that the [abstract] possibility is an intellectual entity linked to an external entity, L 134 so, from the standpoint of its having a linkage to an external entity, it would not itself be an external existent. This is true, because in external reality there is no entity identifiable as '[abstract] possibility,' but rather, 'the possibility of existence' is present in external reality. And because of its linkage with a given particular thing it does prove the external existence of that particular thing, which is the subject-substrate [of the 'possibility of existence'].

The answer [to this objection] is that we do not grant that [the possibility], by reason of its linkage with an external entity, proves that its subject-substrate exists externally. That would be implied only if there should be a linkage in the external, but, if the linkage should be within the mind, then that would not be the implication.

An objection has been raised a) that the [abstract] possibility of a temporal phenomenon may not be admitted to inhere within it, since before its existence a temporal phenomenon cannot possibly be a substrate for anything, and b) [the possibility] may not be admitted to inhere in any other thing, since the qualifier of one thing may not inhere in some other thing.

[In reply] to this [objection] it has been argued that the [abstract] possibility of a temporal phenomenon, prior to the latter's existence, does inhere in its subject-substrate. Indeed, since the temporal phenomenon's existence would have a linkage with the subject-substrate, then the possibility MS 68a of its existence would also be linked to the subject-substrate. Thus, [the possibility] would be an attribute of the subject-substrate in view of its linkage to it, and [the possibility would be] an attribute of the temporal phenomenon in view of the fact that the possibility of [its] existence would be comparable to it.

And, since the temporal phenomenon's existence would be no more than a linkage to another entity, then it would not be impossible for its [abstract] possibility to subsist in that other entity.

An objection might be raised to the effect that, if it should be admissible for the substrate of a temporal phenomenon's possibility to be [also] the subject-substrate [for this possibility], then, in consideration of the fact that [the substrate] was receptive to [the abstract possibility], why would it not be admissible for the substrate of a temporal phenomenon's possibility to be [also] its 'agent', in consideration of the fact that it is [already actively] the agent for it? Rather, this [latter identity] is more appropriate, because the relationship of an active agent to the existence of a causal effect is stronger than the relationship of a passive receptor to its existence.

Let no one say that, if [abstract] possibility should subsist in an active agent, then no power would be exerted by [the possibility], because in that case the 'possibility' would be a way of referring to the power of the Omnipotent One.

Our position is that the fact that the possibility would subsist in an active agent does not require that [the agent's] power logically be identical with the power of the Omnipotent One. Indeed, for the active agent to be such that a temporal phenomenon could issue from it is quite different from [an agent] holding power over [the temporal phenomenon]. [This is] because [the agent's] role as holding power over [the temporal phenomenon] would be causally dependent upon its role as the one from which a temporal phenomenon could issue.

b.-a. To the second [main requirement of the philosophers], namely, that 'temporal origination' in the first sense [of being an 'existence' following its having been a 'nonexistence'] requires the prior existence of a 'time duration',—the answer is that [temporal] antecedence is not bound by the limitation you [philosophers] set forth. Indeed, the antecedence might be quite different from it.

For example, it might be like the antecedence of one group of particles of a time duration over [another] group [of particles in the same time duration]. However, [this antecedence] would not constitute a time duration, because it is impossible for one time duration to include another time duration. L 135 Nor would [this antecedence] be because of causality, since some particles of a time duration would not be a causal factor for others. Likewise, [the

antecedence] would not be because of nature, T 62 nor because of honor, nor because of function, as [this function] would be a matter of [its physical] position, and a time duration does not have a 'position'; and as for being a matter of nature, there would be nothing in the nature of one group of time duration particles that would make it antecedent to the other group. That is what the philosophers have been saying.

But truly, the [notion of the] antecedence of one group of time duration particles over another group would be a return to [the notion of] 'temporal antecedence', since temporal antecedence requires neither the 'before' nor the 'after' to be in some other time duration than what they are in. But rather, temporal antecedence requires the 'before' to be prior to the 'after', in an antecedence that does not join together its 'before' and 'after'.

It is likewise for one group of time duration particles in relation to the other group. The antecedence of some particles over the others would be in a time duration, but it would not be a time duration in addition MS 68b to the preceding one, but rather, the time duration would be the preceding one itself.

Moreover, it is admissible that the antecedence of one group of time duration particles over another group should be in rank. Indeed, 'yesterday' is prior to 'today' in rank, if [the reckoning] begins from the side of the 'past'.

The right thing to be said in answer [to the philosophers] is that, if you [philosophers] mean by a temporal phenomenon's nonexistence prior to its existence 'a time duration' in which [the nonexistence] would be prior to [the existence] by way of an imaginary assumed duration of time, then that meaning is granted. But, if you mean by [the nonexistence] being prior to [the existence] that it would be by way of an actually realized and existent time duration, then that meaning would be ruled out, and what you have presented in explanation of it does not achieve the purpose.

CHAPTER 5: SINGULARITY AND PLURALITY

1. *On the real nature of singularity and plurality*

a. 'Singularity' consists in a given thing being such that it may not be divided into entities having commonality in a quiddity; while 'plurality' is the opposite of ['singularity'];

b. Moreover, 'singularity'

1. differs from both 'existence' and 'quiddity';—whereas the 'many' in itself would be the 'many', whether of some existent thing or a human being, but it would not be a 'one', and the same would be true of a 'plurality';—and [singularity]

2. is an established certainty externally. This is because it would be part of [the concept of] an 'existent one', and because, if it should be a nonexistent then 'plurality' would be a nonexistent; and as 'plurality' would be the sum of the nonexistent 'units of singularity', both of these [conceptual] contraries would be nonexistents, and that would be impossible. Therefore, 'singularity' is something [externally] existential, and 'plurality' being the sum of the 'units of singularity', is also [externally] existential.

An objection has been raised that, if the units of singularity should be existents then they would have a commonality both in the fact of their being units of singularity, and [in the fact of] their being distinguishable from each other by specific properties, so they would have other units of singularity, and then implicitly the argument would be an infinite series. [In fact, however], the truth is that both 'singularity' and 'plurality' are intellectual entities.

CHAPTER 5: SINGULARITY AND PLURALITY

In Chapter 5 the author has set forth three topics: 1. On the real nature of singularity and plurality; 2. The classes of singularities; 3. The classes of plurality.

1. *On the real nature of singularity and plurality*

'Singularity' cannot possibly be defined in accordance with reality because the conception formed of it would be intuitive in nature, as everyone knows that [the category of] 'one thing' [might consist of] a man, or a horse, or any other [single] thing, without needing to acquire this knowledge by a process of reasoning.

a. The definition given by our author is in accordance with [metaphoric] verbal expression,¹ but not in accordance with [strict] reality. If it were otherwise, then the argument would be circular. This is because if we should say, "'Singularity' consists in a given thing being such that it may not be divided into entities having commonality in a quiddity," then we would be saying that 'singularity' consists in a given thing being such that by inherent necessity it may not become 'many'. Thus, we would have used 'plurality' in defining 'singularity'.

But 'plurality' [itself] is impossible to define except by means of 'singularity', since 'singularity' is the beginning principle of 'plurality', and from it are derived its existence and its quiddity. On that basis, any formulation by which 'plurality' would be defined would make use of 'singularity' in it. Examples are: "Plurality is a collection of 'single units'", and "Plurality is what is counted up one by one", and other such formulations. But singularity is better known to the intellect than plurality, because it is the beginning principle of plurality, and the intellect would know the beginning principle first.

The definition [i.e., of 'singularity'] that was set forth [by the author] MS 69a is inclusive of both

1. genuine singularity, that is, an entity being such that it may not be divided as a matter of fundamental principle, as are the Necessary Existent and the point [in space], and

¹ MS glosses: 1. The benefit of putting a definition into a verbal expression is knowing that the verbal expression marks the position of [bi-izā] a determined meaning.

2. A definition by verbal [metaphor] [al-ta'rif al-laḏḏī] is when a [standard] definition does not clearly indicate the meaning, so an interpretation is given by a clearer expression to indicate that meaning, as we say, "The burly fellow [al-ghaḏanfar] is an old lion." This is not a genuine definition meant to help in formulating a not yet realized conception, but it is meant to determine a sense that only the term 'burly fellow' would show among all other meanings, so that one would turn to it and know that it marked its position. [From Jurjani's commentary on Ijī's *Mawaqif*.]

2. adjunctive singularity, that is, an entity being such that it may be divided, but not divided into a plurality of entities having a commonality in quiddity, as man, who may be divided into a hand, a foot, and a head; but indeed, such entities would have no commonality in a perfectly complete quiddity.

As for whatever is divisible into entities having commonality in a quiddity, such as any grouping divided into individual units having commonality in a quiddity, the fact that something is like that would not be [the same as] 'singularity'; but rather, it would constitute 'plurality', the opposite of 'singularity'.

Thus, 'plurality' consists in a thing being such that it is divisible into entities having commonality in a quiddity, such as the aforementioned grouping.

b. Moreover, '*singularity*'

1. differs from both 'existence' and 'quiddity'.

This is because, if ['singularity'] should be identical with 'quiddity' or identical with 'existence', then the notion of a 'one', L 137 as a 'one', would be [identical with] the notion of an 'existent' as an 'existent', or, the notion of 'a man' as 'a man'; but such is not the case.

[On the other hand], the 'many', in itself, would be a 'many', whether of some 'existent' thing, or of a 'human being', but it would not be a 'one', in being a 'many'. And even if it should have a 'one' applied to it as an accidental quality, as when one says of a plurality that it is one plurality, still this usage would not be from the standpoint of its being a plurality. Likewise, '*plurality*' differs from both existence and quiddity. If 'plurality' should be identical with existence or identical with quiddity, then the notion of the 'many' as being 'many', would be [the same as] the notion of an 'existent' as being an 'existent', or the notion of 'man', as being 'man'.

and

2. ['singularity'] is an established certainty externally.

This is because

a) 'singularity' would be part of [the concept of] the 'Existent One', and part of an existent would be an existent. And [it is because]

b) if singularity should be nonexistential, then it would not be an T 63 absolute nonexistence, but rather, an adjunctive nonexistence. It would not be admissible for it to be nonexistent for any other than a plurality, since in the nonexistence of any other than a plurality it would be admissible for both singularity and plurality

to meet together, which implies that two contraries would meet, and that is impossible. So if it should not be nonexistent for any other than a plurality, then it is determined that it would be nonexistent for a plurality.

Now, a plurality would be the sum of the units of nonexistent singularity, MS 69b so it also would be nonexistent; thus, there would be the two contraries [together], singularity and plurality, both nonexistent. But this would be impossible, because one of two contraries must be existential since there would be no meeting between the two nonexistents. Thus it is established that 'singularity' would be existential. And 'plurality' is the sum of the units of singularity that are existential, so plurality also would be existential.

a.-a. The answer to [Baydawi's] first reason is that

1. if by "the Existent One" he means the total composed of 'one' and 'existent', then we do not grant that 'the Existent One' would be an existent in such a way that the 'singularity' that is a part of it would also be an existent; but

2. if by "the Existent One" he means the subject-substrate of the 'One', then it is granted that it would be an existent, but we do not grant that singularity would be a part of [the subject-substrate], but rather, singularity would be made accidental to it.²

b.-a. The answer to [Baydawi's] second reason is that it is indeed admissible for two contraries to be nonexistent, on [the basis of] the fact that 'singularity' is not the contrary of 'plurality', so indeed, there would be no [precise] opposition between singularity and plurality in their essence.

An objection has been brought against the proof that demonstrates that singularity is existential, to the effect that if the units of singularity should be existential, then they would have a commonality in the fact of their being L 138 units of singularity and they would be distinguishable by reason of their specific properties.³ So the singularity units would have other singularity units, and then the discussion would be transferred to the singularity units belonging to the singularity units, and there would be an implicit infinite series argument about existent entities that are composites. But that would be absurd.

² The MS adds here: "... but the existence of an accident may not be inferred from the existence of a substrate."

³ MS gl: And these would constitute other units of singularity.

The fact of the matter is that singularity and plurality are not precisely 'existential entities', but rather, they are 'intellectual entities'. In regard to 'singularity', this is [true] because if it should be an existent precisely, then it would be just one thing among all things. So it would have its own singularity, and its own singularity would have its singularity, and thus, implicitly there would be an infinite series of entities both composite and existent all together.⁴

Rather than this, [singularity] is an intellectual entity that the intellect deals with, in the absence of any division into particles having commonality in a quiddity. And in regard to 'plurality', [its being an intellectual entity is true] because [plurality] is constituted by the units of singularity that are themselves intellectual entities.

Baydawi said:

L 138, T 63

Singularity is not the opposite of plurality in essence

As a corollary [of the foregoing], 'singularity' is not the opposite of 'plurality' because of its essence, since neither one of them would constitute the 'absence' of the other, nor would [either one] be an opposite of [the other]. Nor would [the singularity] be adjunctive to [the other] in such a way that the plurality would subsist in [the singularity], but rather, in such a way that [the singularity] would be a measure of the plurality and that [measure] would be an adjunction made accidental to it.

Isfahani says:

L 138, T 63, MS 69b

Singularity is not the opposite of plurality in essence

'Singularity' is⁵ opposite to 'plurality' because of the impossibility of them both meeting together in a single subject-substrate and for a single reason. But singularity MS 70a is not the opposite of plurality because of [singularity's] essence, but rather, because of [its] usage as an accidental quality.

⁴ MS gl: i.e., simultaneously [duf'atan].

⁵ The MS has a negation, "not" [lā], mistakenly inserted here in a hand different from the main text. L and T do not have this negation. Isfahani places this positive statement in contrast [lākin] with the negative statement from Baydawi immediately following.

Regarding this fact that singularity is not the opposite of plurality because of its essence, the reason is that there is no opposition between the real nature of 'singularity' and [that] of 'plurality' that matches any of the four [recognized] types of opposition [which are]:

The four recognized kinds of opposition⁶

a. the opposition of 'negation/affirmation', b. the opposition of 'privation/possession', c. the opposition of 'contradiction', and d. the opposition of 'mutual adjunction'.⁷

(a.) In the case of the opposition of 'affirmation/negation' [there is no opposition between 'singularity' and 'plurality'] because 'singularity' gives subsistence to 'plurality', but there is nothing opposed to either negation or affirmation that would give subsistence to [plurality's] opposite.

(b.) In the case of the opposition of 'privation/possession', [there is no opposition between singularity and plurality] because 'singularity' is existent within 'plurality' giving it subsistence, but possession is not existent within privation in such a way that privation would be composed of [many] possessions gathered together. Therefore, singularity is not a possession of plurality, and likewise, possession would not be identical with plurality, since possession is not built up from its privations. Thus, between [singularity and plurality] there is no opposition of [the type] 'privation/possession'.

(a.) & (b.) The author excluded opposition from both the 'affirmation/negation' [type] and the 'privation/possession' [type] from [the case of] singularity/plurality for one reason, namely, that each [case of] the opposition of both the 'negation/affirmation' [type] and the 'privation/possession' [type] would require that L 139 one of the two opposing factors should be the 'absence' of the other [factor]. But neither of these two, namely, singularity and plurality, is the 'absence' of the other.

(c.) & (d.) Regarding opposition of the 'contradiction' [type] and that of the 'mutual adjunction' [type], [there is nothing of either type between singularity and plurality] because singularity is neither the 'contrary' of plurality nor its 'adjunct', as plurality subsists in

⁶ Aristotle is credited with the establishment of the types of 'opposition', having discussed the matter chiefly in his "On Interpretation", "Topics", and "Metaphysics."

⁷ 1-[taqābul al-salb wa-al-ijāb], 2-[taqābul al-'adam wa-al-malakah], 3-[taqābul al-taḍādd], 4-[taqābul al-taḍāyuf].

singularity, and nothing that would be [one part of] a contradiction or of an adjunction would ever give subsistence to the other part.

What proves that singularity would not be the contrary of plurality is the fact that the condition for [the existence of] contraries is that there be a single substrate for them both, but the substrate of singularity is not the same as the substrate of plurality.⁸

And what proves that singularity would not be [opposed as one party] adjoined with plurality is the fact that plurality's quiddity cannot be intellectually perceived [as being] in comparison with singularity, even though [plurality's] quiddity can be intellectually perceived by means of singularity.⁹ For there is a difference between a thing's being intellectually perceived as being in adjunction with something else and its being intellectually perceived by means of it; and that which is considered as being in adjunction [with something else] is the former. MS 70b

Moreover, [in reverse], singularity cannot be intellectually perceived [as being] in comparison with plurality, and the precondition for [the existence of] an adjunction is that both parties to the adjunction should be intellectually perceptible in relation to the other.

The fact that singularity may be the opposite of plurality when it is an accidental quality is due to the fact that singularity is the instrument of measure for plurality, and plurality is the object of its measure. The instrument of measure would be the opposite of the object of measure [when it is] in an adjunct relationship to it; it is likewise with the object of measure compared to the instrument of measure. Indeed, thinking about the object of measure is done in comparison with thinking about the instrument of measure, and vice versa.

The instrumentality of measure and the objectivity of the measured are factors outside the real nature of singularity and plurality, being accidental qualities applied to them. Therefore, the opposition between singularity and plurality would be in regard to having as their accidental qualities the instrumentality of measure and the objectivity of the measured.

⁸ MS gl: Because the substrate of singularity is a part of the substrate of plurality, just as singularity is a part of plurality.

⁹ L gl: I.e., plurality's quiddity cannot be intellectually perceived simultaneously with singularity, but rather after intellectually perceiving singularity, because the latter is a part. Thus, mankind may be one in essence, but many as an intellectual consideration, while its individuals may be many in essence, but one as an intellectual consideration.

Baydawi said:

L 139, T 63

2. *Classes of singularities*

If the very notion of a 'one' cannot be predicated of any pluralities, then it would be a 'one' as an individual, but if this should not be impossible, then it T 64 would be a 'one' from one aspect and a 'many' from another aspect.

Thus, if the aspect of singularity should be its very quiddity, then it would be a 'one' in species. If [the aspect of singularity] should be a part of [the quiddity], then it would be a 'one' in genus or in differentia. If [the aspect of singularity] should be external to [the quiddity], then it would be a 'one' by way of accidental qualification, either being predicated, as the 'oneness' of cotton and snow in being white, or being the subject-substrate, as the 'oneness' of a person who writes and one who laughs [in being human]. If a 'one' as an individual should not be receptive to division at all, and if it should have no other significance than this, then it would be a unit of singularity. But if it should have [some other significance], then either it would have position, this being a point in space, or it would not have L 140 [position], this being a transcendent entity.¹⁰ If [the 'one' as an individual] should be receptive [to division], and if its parts should have mutual resemblance, then it would be a 'one' in the sense of a 'continuity',¹¹ otherwise, [it would be a 'one'] in the sense of an aggregation.

It can be said that a 'one', in the sense of continuity, would be applicable to two extensions that meet at a common point, as the two sides of an angle, or, whose two ends adhere to one another so that the movement of one of them involves the movement of the other. Further, if the 'one' should comprise all that would be possible for it to attain, then it would be a 'perfect one', but if it should not attain to this, then it would be an 'imperfect one'. This perfection would be either something natural, something arbitrarily established or something made by hand, as [for instance] Zayd, a dirham or a house. Then, a 'oneness' in species is called 'similarity', and in

¹⁰ Position [waḍʿ], transcendent entity [mufāriq].

¹¹ Goichon, *Lexique* #775: "Continuity in the sense of a contiguity of material contact, or of a joining between incorporeal substances."

genus it is called 'homogeneity'. And when [the oneness] is like an accidental quality, if it is in quantity [it is called] 'equality', and if it is in quality it is called 'similitude'. If the oneness is in what is adjoined, then it is called a 'correlation'. If it is in the figure, then it is called 'conformity'. If it is in 'position', then it is called 'parallelism'. If it is in the borders, it is called 'correspondence'.¹²

Isfahani says:

L 140, T 64, MS 70b

2. *Classes of singularities*

If it should be impossible to predicate the concept of the notion of 'one' itself of pluralities, then it would be a 'one' as an individual, as 'this [particular] man'. But if it should not be impossible to predicate the concept of the notion of 'one' itself of pluralities, then it would be a 'one' from a given aspect and a 'many' from another aspect, because of the impossibility for 'one thing' from a single aspect to constitute both a 'one' and a 'many' simultaneously.

Thus, if an aspect of singularity should constitute the very quiddity of that 'many', then it would be a 'one' in species,¹³ as the single units of 'mankind'. For in this 'many' there is both an aspect of singularity, namely, 'mankind', and an aspect of plurality, namely, [all] the individuals. The aspect of 'singularity' is the very quiddity of this 'plurality', this [singularity] being what is said of the many that are in agreement in their real nature in answer to the question, "What is it?"

If the aspect of singularity should constitute [only] a part of the quiddity of the 'many', then it would be a 'one' of genus,¹⁴ if, in answer to the question of 'what is it', the aspect of singularity should be applied verbally to a 'many' that are different in their real nature. But if, in answer to the question of 'what is it', the aspect of sin-

¹² Similarity [munāthalah], homogeneity [mujānasah], equality [musāwāh], similitude [mushābahah], adjoined [muḍāf], correlation [munāsabah], figure [shakl], conformity [mushākalah], parallelism [muwāzāh], borders [aṭrāf], correspondence [muṭābaqah].

¹³ MS gl: I.e., as the oneness [ittiḥād] of Zayd and 'Amr in [the one species] of mankind.

¹⁴ MS gl: Either proximately, as 'living being' in relation to its individual examples, or remotely in various degrees, as the 'growing body' and the body and its substance in relation to the individual examples [of the aspect of singularity].

gularity should not be applied verbally to a 'many' that are different in their real nature, then it would be a 'one' of specific difference. The first example [here] is like the kinds of living beings having identity in genus, which is 'living being', and the second example is like the individual units of mankind that have identity in a specific difference, which is 'rational speech'.¹⁵

If the aspect of singularity should be external to the quiddity of the plurality, then it would be a 'one' L 141 by way of accidental quality. And the 'single unit' of accidental quality¹⁶ would be MS 71a either a 'one' by way of predication, as the oneness of the whiteness quality in cotton and snow, or it would be a 'one' by way of a subject-substrate, as a 'oneness' in the being of humankind of a person who writes and one who laughs.

If the 'one' as an individual should not be receptive at all to division, and if it should have no other significance than its being something not divisible into [a plurality of] entities having a commonality in quiddity, then it would be a '[one of] singularity'. But if it should have significance other than that, then either it would have position, which would be a point [in space], or it would not have position, and then it would be a transcendent entity as the soul and the intellect. However, if the 'one' as an individual should be receptive to division, and if its parts should resemble each other in reality, then it would be a single unit of 'continuity', as a simple body and the extensions, namely, a line, a surface and a geometrical teaching body [i.e., these being samples of the three dimensions]. But if its parts should not resemble each other in reality, then it would be a 'one' of 'aggregation', as a human individual is [theoretically] divisible into body members. The 'one' of continuity may be said to have two 'extensions' that meet at a 'common terminus', as the two sides of an 'angle'.¹⁷ A 'one' of continuity may also be said to have two extensions, their ends so attached that the movement of one of the

¹⁵ Every singularity of specific difference is a singularity of species, but not vice versa, as the simple species, for their individual examples are identical in species but not in specific difference.

¹⁶ Reading with the MS and MS Garrett 989Ha that repeat, "the 'single unit' of accidental quality", to begin the next sentence, while L and T use a relative pronoun.

¹⁷ In the margins of L 141 and MS 71a we may note the line drawing of an angle, with labels: the sides = 'extensions', the corner within = 'angle', the outer point of the angle = 'common terminus'.

two ends requires the movement of the other, as two adjacent body members their borders so attached that the movement of one of them requires the movement of the other.

Further, if the 'one' as individual should attain all that was possible for it, then it would be a perfect 'one', but if it should not attain all that was possible for it, then it would be an imperfect 'one'. A completely perfect thing would be either something natural, as Zayd, or something arbitrarily established, as a dirham, or something made by hand, as a house.

Singularity in description, whether of an accidental quality or a quiddity, will vary in its names according to the variation in what is being adjoined. Thus a oneness in species, as the oneness of Zayd and 'Amr in being human, is called 'similarity', while [if it is] in genus, as the oneness of a man and a horse [each] in being a living being, it is called 'homogeneity'. In usage as an accidental quality, if it should be in [the category of] quantity, as the oneness of two robes in length, it is called 'equality' and if in [the category of] quality, as the oneness of two bodies in color, let us say, a black man and a black horse, it is called 'similitude'. If [the oneness] should be in an adjunction, as the oneness of Zayd and 'Amr in being first-born sons, it is called a 'correlation'. If it should be in shape, MS 71b as a oneness of fire and air in [the tendency toward] being spherical, it is called 'conformity'. If it should be in position, such that the distance between [two things] would not differ, as a oneness between the [outer] convex surface of every celestial sphere and its [inner] concave surface, then it is called 'parallelism'. And if it should be in the borderlines, as a oneness between two bowls in their edges so that T 65 when one of them is inverted over the other L 142 their edges match, then it is called 'correspondence'.

Baydawi said:

L 142, T 65

3. *Classes of plurality*

Every [particular grouping of] two things has mutual variances.

Our senior colleagues [of the Asha'irah] hold that if each one of these things should be independent of the other in both its essence and its real nature, in such a way that [either] one of them could be separated from the other, then they would constitute two different entities. But if it should be otherwise, then they would be either an

attribute and its described substrate, or, a whole and a part. For this reason, [our colleagues] held that an attribute, when it is together with the essence [of a thing], would be neither identical to it nor different from it.

According to the first usage, if the two things should have a commonality in the complete quiddity, then they would be homogeneous, otherwise, then they would be heterogeneous. They would be 'closely associated' if they should have some commonality in a subject-substrate, as blackness and motion-change, both these being accidental qualities of a body. They would be 'equals' if each one would affirm as validly applicable everything that the other would affirm as validly applicable. They¹⁸ would be 'mutually interpenetrating' if one of them should affirm [only] part of what the other affirmed. But if the other should affirm all of the [former's] individual features, then it would be more general in an absolute sense;¹⁹ otherwise, each of the two would be more general than the other from one aspect and more particular from another aspect.

The two [entities under consideration] would be 'mutually distinct' if they should not have any commonality, and [they would be] 'mutually opposed' if it should be impossible for them to coexist in one subject-substrate from one aspect in one duration of time. If both of them should be existential, and if it should be possible to give intellectual attention to one of them while attention is removed from the other, then they would 'contraries' as are blackness and whiteness, but if that should not be possible, then they would be 'adjunctions' as are fatherhood and sonship.

If one of them should be existential and the other nonexistential, and if it should be considered that a certain subject-substrate was ready to be characterized by an existential entity according to its individuality, its species or its genus, as someone being sighted or blind, then it would be [an opposition of] genuine 'privation' and [genuine] 'possession'. But if it should be considered in this situation that the subject-substrate would be present at a time in which

¹⁸ The scribe of L dropped this sentence at L 142:9, but gave an indication in the margin for its insertion. T omits it entirely. MSS Garrett 283B and 989Hb include it in the text.

¹⁹ L gl: As in the case of 'man' and 'living being' [al-ḥayawān], for 'man' may be affirmed of some [examples] that 'living being' may be affirmed of, while 'living being' may be affirmed of all [the examples of] 'man'.

it could be characterized by [the descriptive attribute], then it would be [an opposition of] 'popularly accepted' possession and privation. But if there should be no [such] consideration, then it would be [merely an opposition of] 'negation' and 'affirmation'.

Isfahani says:

L 142, T 65, MS 71b

3. *Classes of plurality*

Every [particular grouping of] two things has mutual variances.²⁰

Our senior colleagues, that is, the senior scholars among the [Asha'irah] Sunnis, hold that if each one of these things should be independent L 143 in its essence and in its real nature so that it would be possible for each one of the two to be separable from the other, in that neither one of them would subsist in the other nor give subsistence to it, then the two would be different entities, as a father and a son.

Now, each of these two has an independence of essence such that each of them can be separated from the other. Although father and son cannot be separated each from the other in accordance with an intellectual description of [the case as being one of] fatherhood and sonship, still a separation each from the other would be possible according to their essence.

But if it should be otherwise, that is, if neither of the two entities should have independence of essence, so that separation from each other would not be possible, and a) if one of them should subsist in the other, then these two entities would be an 'attribute' and its described 'substrate', the subsisting one being the attribute and that in which it subsists being the substrate, as 'blackness' is with a 'body'; or b) if one should give subsistence to the other, then they would be a 'whole' and a 'part', as are [the categories of] 'mankind' and 'living being'. There can be no separation of these two [i.e., the whole and the part] from each other, one of them, namely, [the category of] 'living being,' giving subsistence to the other, namely, [the

²⁰ MS glosses: 1. This is the doctrine of the Mu'tazilah. 2. I.e., duality necessarily involves mutual difference [al-taghāyur]. This common idea is what everyone has accepted; to most people, any two would be two different things, just as any two different things would be two by consensus.

category of] 'mankind.' Thus, [the category of] 'living being' would be the 'whole' and [the category of] 'mankind' would be the 'part'.²¹

Because of the technical usage of terms here, our senior colleagues held that an attribute when together with a essence would be neither identical to it nor other than it. With regard to [the attribute] not being identical [to the essence], that fact is obvious. But with regard to [the attribute] not being other than the essence, the reason is the fact that the attribute subsists in the essence, and [the case is] according to the first technical usage, namely, that each of every given two things will have variances from the other. If the two variants should have a commonality in the complete quiddity, then they would be 'homogeneous,' as Zayd and 'Amr, since these two²² have a commonality in the complete quiddity that is humanity. MS 72a If it should be otherwise, that is, if the two variants should not have a commonality in the complete quiddity, then they would be 'heterogeneous'.

Now, the two heterogenous entities would be 'closely associated' if they should have a commonality in a subject-substrate, as would blackness and motion-change, for these two are applied as accidental qualities to a body, and the body is the subject-substrate for them both. They would also be 'predicated' of a body in a derived sense, since it may be said that the moving body is the black body.

Then, the two closely associated entities would 'equals', if each one of them should affirm as validly applicable [to itself] everything that the other would affirm as validly applicable, as the categories of 'humanity' and 'rational speech'. But they would be 'mutually

²¹ N.B.: This translation has been changed here to reflect the correct necessary logical order of the entities. In example a) just preceding, Isfahani's rhetorical parallelism accepts the necessary logical order in the pattern: X Y—X Y. However, in example b) he fails to accept the necessary logical order, and twice makes it: X Y—Y X. The first occasion here may be considered a minor aesthetic variation (i.e., a rhetorical order preferred over that of logic), but the second occasion is serious as it is an obvious misstatement of fact. In example (b) the entities in question logically are the 'whole' that gives subsistence to the 'part', as the category 'living being' gives subsistence to the category 'mankind'. But Isfahani's text reads: "One of the two, namely the [category of] 'living being' gives subsistence to the other, namely, the [category of] 'mankind'; **THUS, THE CATEGORY OF 'MANKIND' WOULD BE THE 'WHOLE' AND THE CATEGORY 'LIVING BEING' WOULD BE THE 'PART.'**" The sources used for this translation—L, T, the MS, MSS Garrett 989Ha and Garrett-Yahuda 4486,—all agree on this reading. But no glosses are presented to challenge it.

²² The scribe of L inadvertently adds "if" [in] here; other sources do not.

interpenetrating' entities if one of them should affirm as validly applicable [only] part of what the other would affirm as validly applicable [to itself]; and by the inherent necessity of the case, the other also would affirm as validly applicable [only] part [of what the first one had affirmed]. Indeed, if the [first] one should affirm as validly applicable [to itself] all the individual [features of the other], then such a one affirming all features of the other would be a more general entity in an absolute sense, while the one that would affirm only part of [the features of] the other would be a more particular entity in an absolute sense. L 144

It would be as it is with the categories of 'living being' and 'mankind'. One of these two, namely, 'mankind', affirms only some of the features of the other, namely, the category 'living being', while 'living being' affirms all the features of 'mankind'. Thus, 'living being' is a more general category in an absolute sense, and 'mankind' is a more particular category in an absolute sense. If it should be otherwise, that is, if one of the two entities should not affirm all the features of the other, but rather, if each of the two should affirm only part of what the other affirms, then each of them would be more general from a certain aspect and more particular from a certain aspect, as are the categories of a 'living being' and a 'white being'.

But, the two entities that are heterogeneous would be 'mutually distinct', if they should not have a commonality in a subject-substrate. Then, mutually distinguishable entities would be 'mutually opposed', if it should be impossible for them to meet in one subject-substrate from a single aspect and in a single time duration.

[Baydawi] had considered [the case to be one of] singleness of subject-substrate and of time duration in order to subsume under it the opposition of contradiction. However, it would not be impossible that there be a coexistence of two contraries in two subject-substrates, nor [would it be impossible] in one subject-substrate but in two [different] time durations. He also considered [the case to be one of] singleness of aspect in order to subsume under it the opposition of two correlated entities. However, it would be possible that they both be made accidental qualities of one individual in one T 66 time duration, but from two aspects, not from one aspect; it would be as it is with fatherhood and sonship, since both of these might be made accidental qualities of one individual, but from the two [different] aspects.

The four recognized kinds of opposition

[As we have mentioned before]: opposition is comprised of four [recognized] kinds: MS 72b a. the opposition of contraries;²³ b. the opposition of mutual adjunctions; c. the opposition of privation/possession; d. the opposition of negation/affirmation.

This [classification] is because the two opposites either would be both existential, or one of them would be existential and the other nonexistential.

(a.) If both the two opposites should be existential, and if it should be possible to think of one of them while removing attention from the other, then they would be contraries, as blackness and whiteness, the opposition between them being the opposition of contraries.

(b.) But if it should not be possible to think of one while removing attention from the other, then they would be two mutual adjunctions, the opposition between them being the opposition of mutual adjunction, as are fatherhood and sonship.

(c.) Now, if one of the two opposites should be existential and the other nonexistential, and if it should be considered that a subject-substrate was ready to be characterized by the existential [one of the pair] according to [the substrate's] individual example,—as blindness or sightedness applied to a human individual, or according to its species, as the absence of a beard on a woman, or according to its genus, as the absence of sight applied to a scorpion,—then [the case would be one of] genuine privation/possession.

And if it should be considered that a subject-substrate was ready to be characterized by an existential entity at a time when it was possible to be so characterized, then it would be [a case of] privation/possession as popularly understood, as would be the absence of a beard on a man at an age when a beard would be normal. L 145

(d.) However, if it should not be considered that a subject-substrate was ready to be characterized by an existential entity, not according to its individual, nor according to its kind, nor according to its genus, nor at a time when it would be possible to be so characterized, then it would be [a case of the opposition of] negation/affirmation, as when you might say, "Zayd can see", or, "Zayd cannot see." The opposition of negation/affirmation²⁴ refers back

²³ The MS alone reads: 'contradiction' [al-taḍādd].

²⁴ The MS reverses the nouns: "affirmation and negation."

[either] to the statement of proposition²⁵ or to [the making of an intellectual] decision,²⁶ that is, the two opposites in these two cases would be [shown as being opposed either] in a statement of proposition, as he set forth [in the example, "Zayd can see"], or, in an intellectual decision and conception [of the matter] as shown in what his example means. There will be no external realization for either one of the two contraries in the opposition of affirmation/negation, since there is nothing in the external precisely identical to 'affirmation' and 'negation.' But rather, these two would be either intellectual decisions deriving from a sense of certainty in the intellect, or [they would be] a statement of proposition indicating that fact.

A [first] objection might be raised that just as 'affirmation' and 'negation' exist between two judgments MS 73a they would exist between two individual cases, as between 'horse' and 'nonhorse', and thus the opposition of affirmation/negation would not refer back to a statement of proposition or to an intellectual decision.

The answer to this [first objection] would be that as long as the affirmation of 'horse' and 'nonhorse' should not be considered as applying to one subject-substrate, then there would be no conception of opposition between them, so there [indeed] would be a reference back to a statement of proposition or to an intellectual decision.

A [second] objection might be raised not granting that [the category of] 'opposition' would comprise [only] the four kinds that were set forth, because of the admissibility of there being an [additional kind of] 'opposition' between two 'privations'.

The answer to this [second objection] is that there would be no opposition between two privations, since absolute privation would not be opposed to absolute privation because of the impossibility for a thing to be opposed to itself, nor would [absolute privation be opposed] to adjunct privation, because then it would be joined together with it, nor would adjunct privation be opposed to adjunct privation, because then they both might be affirmed [as the privation] of everything existent other than the two existents of which they were [already] the privations.

²⁵ MS gl: With respect to figurative existence it refers back to a statement of proposition, and with respect to real existence it refers back to a [mental] decision ['*ʿaql*].

²⁶ MS gl: I.e., 'conviction' [*al-ʿuqūd*].

And a [third] objection might be raised that the opposition of two privations is an actuality, as in the opposition of 'blindness' and 'non-blindness', since it would be inadmissible for them both to be joined together in one subject-substrate in one time duration²⁷ and from one aspect.

The answer to this [third objection] is that 'nonblindness', that is, the negation of blindness, would exist only if blindness should be excluded, and the exclusion of blindness would be either by excluding sightlessness, or by the absence of any receptivity by the subject-substrate. If it should be the first [alternative], then the exclusion of sightlessness would be identical to having sight; therefore, the opposition between them would be an opposition of privation/possession, and no consideration would be given to [even] a particle of privation in the 'nonblindness'. And if it should be the second alternative, then it would be a kind of negation of the receptivity of the substrate; therefore, the opposition between them would be an opposition of affirmation/negation, and the opposition between the two privations would not be realized.

A [fourth] objection is raised that the philosophers had laid down the condition in [the case of the opposition of] contraries that the difference between [the contraries] should be an extreme. L 146 Thus, the opposition of two existential entities where it would be possible to think of one of them while removing one's attention from the other would not be included in the opposition of contraries. Indeed, an example of the opposition of blackness and yellowness would fall outside its bounds, although the definition is valid for it.

The answer to this [fourth objection] is that [the philosophers] had laid down the condition for a genuine opposition of contradiction; that is, [in the case] between the two existential entities where it would be possible to think of one of them while removing one's attention from the other MS 73b there should be a 'succession'²⁸ [of thoughts], and so between the two [existential entities there would be] difference²⁹ to an extreme. [However, the philosophers' condition was intended] not for an opposition of contraries as popularly understood. In other words, [the popularly understood notion of an

²⁷ The MS omits this phrase.

²⁸ MS gl: I.e., the admissibility of a succession, not a realized succession.

²⁹ MS gl: I.e., an extreme distance.

opposition between] the two existential entities where it would be possible to think of one while removing one's attention from the other would be more general [in kind] than [an opposition between the poles of which] there could be [either] a 'succession [of thoughts]' or 'difference to an extreme'. And so the limitation [to the recognized types of opposition] applied only to the opposition of contradiction, as popularly understood.

A [fifth] objection has been raised that, if the condition made³⁰ in the opposition of the existential and the nonexistential should be that the nonexistential would constitute the absence of the existential, then there may exist a [kind of] opposition that would be neither the opposition of privation/possession, nor the opposition of affirmation/negation, such as would be the opposition of an existing premise³¹ and a nonexisting conclusion. But, if this should not be the condition made, then this [example of] opposition would be one of affirmation/negation,—as there was no receptive subject-substrate in the condition, although that is not the case,—because of the admissibility that both [i.e., the new examples, existing premise and nonexisting conclusion] might be removed.³² [And it would also be because of] the impossibility of removing [the opposition of] negation/affirmation, in view of the fact that [the philosophers] stated clearly that the privative in these two kinds [of opposition] must constitute the privation of what is positive.

The answer to this [fifth objection] is that a singleness of subject-substrate would be considered [to be the assumption] in [a case of] opposition, but for the 'existing T 67 premise' and the 'non-existing conclusion' to coincide in one subject-substrate would be inconceivable. This is because the subject-substrate of the 'nonexisting conclusion' would be unlike the subject-substrate of the '[existing] premise'. Therefore, the two of them would belong among mutually disparate pairs, something other than opposites.³³

³⁰ 3re and at the next occasion the verb form varies: L, T and MS Garrett 989Ha: [ushtiraf]/[lam yushtaraf]; MS: [ishtarafū]/[lam yashtarifū].

³¹ The MS omits [wujūd], presumably a scribal error.

³² The MS inserts text here, "as in the case of the conclusion to which the privative [al-'adam] is adjoined."

³³ Privative ['adamī], privation of the positive ['adam al-wujūdī]; mutually disparate pairs [mutabāyinayn].

Baydawi said:

L 146, T 67

Objections regarding the black/white contrast

An objection has been raised that wherein blackness is [treated as] the opposite of whiteness, it is [properly] its adjunct. [In answer], our position is that the adjunction would be from the same standpoint as blackness, but it would not be identical to it.

A [second] objection is raised that an 'opposite' would be subsumed under an 'adjunction', so an adjunct would not be under [an opposite]. But our position [in answer] is that an adjunction [would rank] under whatever an opposite would affirm of it, and this would be something more general, because of its having been affirmed [already] of the [opposition of the] two contraries and of [the opposition of] affirmation/negation. Under [the adjunct] would be an opposite, or each of the two [opposites] would be there, but not the essence by itself.

Isfahani says:

L 146, T 67, MS 73b

Objections regarding the black/white contrast

An objection has been raised that whereas blackness is [treated as] the opposite of whiteness, whiteness is adjoined to it; both of them would be existential entities where it would not be possible to think of one while removing the other from one's attention, because contradiction is an adjunctive matter, and thus the opposition of contraries would be no other class than that of adjunctions.

[In answer], our position is that an adjunction would be from the same standpoint as the blackness, but not be the blackness itself. L 147 When one observes³⁴ the essence of blackness it is the 'opposite of whiteness', and whereas it is the 'opposite of whiteness', whiteness would be adjoined to it. Thus,

a. 'contradiction' would be made an accidental quality of the essences of blackness and of whiteness, and

b. 'adjunction' would be made an accidental quality of the relational aspect of the two of them;³⁵ that is,

³⁴ T and the MS: [naẓran ila']; L and MS Garrett 989Ha: [idha naẓara ila'].

³⁵ L and MS gl: The first is genuine correlation, as 'fatherhood', while the second is the correlation of popular usage [al-muḍāf al-mashhūr], as 'father'.

(a.) the notion of ‘contradictory’ would be made accidental to both of their essences and predicated of both of them, while³⁶

(b.) the accidental quality of ‘adjunction’ would belong to the sum of the essence [together] with its description as ‘contradictory’.

A [second] objection has been raised that an ‘opposite’ [correctly] is subsumed under an ‘adjunct’, because MS 74a an ‘opposite’ is an existential entity and impossible to think of alone while removing one’s attention from the other ‘opposite’, that also would be an existential entity. Thus, how would an ‘adjunct’ be subsumed under an ‘opposite’, since in that case the implication would be that each of the two entities [i.e., the ‘opposite’ and the ‘adjunct’] would be absolutely more general than the other?³⁷

Our position [in answer] is that the ‘adjunct’ would be subsumed under whatever the ‘opposite’ would affirm, that is, under an essence that the ‘opposite’ would affirm. Whatever an ‘opposite’ would affirm would be more general than ‘adjunct’, because it would have affirmed the ‘contradictory’ and everything else. On the other hand, subsumed³⁸ under ‘adjunct’ would be the ‘opposite’, or an essence that would be limited by its own limitation as being an ‘opposite’. There would be no impossibility [in a case where], if with regard to its own essence, a given thing should be more general than something else, and, if with regard to one of its own accidental qualities, it should be more particular than the other.

Baydawi said:

L 147, T 67

Some corollaries

a. Two homogeneous entities may not meet together [i.e., in one substrate]; otherwise, they would be united by reason of their attributes, so the two would be identical with each other, and not two homogeneous entities.

b. The opposition between negation/affirmation is [an opposition] of the essence, since each one of two adjuncts and of two contraries

³⁶ Reading with the MS, which reads “while”, “and” [wa]; although L and T, along with MS Garrett 989Ha read “or” [aw]. The former reading appears to be more in context.

³⁷ MS gl: And this would be impossible.

³⁸ T adds, [wa-yandarij].

is opposed to the other only because one [of each pair] requires the nonexistence of the other [in the pair]. Otherwise, the case would be as it is with other [kinds of] pairs of mutually disparate entities.

c. Negation and affirmation may not both be true and may not both be false;

1. Two adjuncts may both be false as the substrate may be devoid of both;

2. Two opposites [may both be false] because

a) the substrate may be nonexistent, or

b) it may be characterized as something intermediate,—as tepid, or unjust, or inadmissible,—or

c) it may be devoid of everything, as something transparent;

3. Privation and possession [may both be false], because either

a) the substrate does not exist, or

b) it lacks capacity for [possession].

d. [Other corollaries]

1. Two adjuncts will be mutually concomitant to each other, both pursuing and reversing in every aspect;

2. Two opposites sometimes

a) will occupy the [same] substrate alternately and thus follow each other, as do health and sickness; or sometimes

b) they will not follow each other, as it is with motion away from a center and motion towards it, since inevitably there must be between them a point of rest, as is the popular view; or sometimes

c) only one of the two [contraries] will occupy [the substrate], as it is with the whiteness of snow.

e. Inductive reasoning has indicated

1. that the opposition of contradiction will exist only between two [that are mutually] 'other' in species, [both being] subsumed under a single genus, and

2. that a pair of mutually distinct [opposites] may not be contradicted by a single entity.

Isfahani says:

L 147, T 67, MS 74a

Some corollaries

The author, [Baydawi], set forth L 148 five corollaries to Topic 3 [on the classes of plurality].

a. Two homogeneous entities may not meet together in one substrate, because

1. the two homogeneous entities would be identical both in the quiddity and in the concomitants of the quiddity, so if they should meet together in one substrate they would be identical also by reason of their accidental qualities; and because

2. if they should meet together in one substrate, and if everything that was an accidental quality of one would be an accidental quality of the other, then the two homogeneous entities would be mutually identical, not homogeneous.

b. Opposition is of the essence when it is between negation and affirmation, because each side of an affirmation/negation [opposition] will of its own essence reject the other. This is in contrast to [the case of] each of two contraries and of two adjunctions, for [in the latter cases] the one is opposed to the other only because it requires the nonexistence of the other.

For example, a matter that may be affirmed to be 'not-good' will have comprised within it two convictions, a conviction that it is 'not-good' and a conviction that it is 'evil'. The conviction that it is 'not-good' would not exclude the conviction that it is 'evil', since they are both affirmed of a single essence. And there would be no conviction that it is 'not-evil', since [the two opposite convictions] would be affirmed of a single matter.

Now, the opposite of the conviction that it is 'not-good' would be the conviction that it is 'good', and this contradiction would be verified from both sides. Thus, nothing would contradict the conviction that it is 'good' except the conviction that it is 'not-good'; and not [even] the conviction that it was 'evil' would contradict it. And since any contradiction [of the fact] that it was 'good' has been confined to the conviction that it is 'not-good', the opposition between negation and affirmation would be one of the essence, which is different from [an opposition] of two contraries. MS 74b

Moreover, [a matter affirmed to be] 'good' will have [within it] two, the conviction that it is 'good' and the conviction that it is 'not-evil'. The first of these [is a conviction] that its essence belongs to 'the good', and the second [is a conviction that would be] accidental [to the first],³⁹ because [the second] would be external to the reality of the 'good'.

³⁹ The MS inserts here, "to it."

Now, the conviction that it is 'not-good' would put an end to the conviction that it is 'good', and the conviction that it is 'evil' would put an end to the conviction that it is 'not-evil'. Furthermore, whatever would put an end to a matter of essence would have a greater power of objection than one that would put an end to a matter of accidental qualification, because whatever would put an end to a matter of essence would be putting an end to [another] essence by means of its own essence, and whatever would put an end to a matter of accidental qualification would be putting an end not to an essence but to an accidental qualification by means of its own essence.⁴⁰

Therefore, a conviction that it is 'not-good' would be a stronger force of objection to a conviction that it is 'good', than would a conviction that it is 'evil'. This is because the exclusion that is between the given entity and what would put an end to its essence,—but not by the intermediate means of any other thing, T 68 —would be a stronger force of objection than would the exclusion that is between the given entity and what would put an end to its essence,—by the intermediate means of some entity external to it.

Moreover, if 'evil' had not been comprised within the fact that it is 'not good', then the conviction that it is 'evil' would not have put an end to the conviction that it is 'good'. Indeed, if we had posited something else that was 'not good', in place of 'evil', then the conviction L 149 that the given entity was that [other] entity that comprised the fact that it is 'not good' would prevent the conviction that it is 'good'; and that would be not because it was that [other] entity, but rather because it comprised the fact that it is 'not-good'.

This [discussion] all indicates that an [opposition of] exclusion by means of the essence will exist only between negation and affirmation. This last [position] is what the author has set forth in his book.

c. Negation and affirmation may not both be true or both be false at once.

⁴⁰ In describing a removal of an 'X' by a 'Y' Isfahani uses a sequence of prepositional phrase [li-al-] (instead of a direct object for the 'X') then an instrumental phrase, in this series. However, in this final clause of the series, Isfahani unaccountably reverses the sequence of the nouns by putting the instrumental noun first, while both the prepositions remain in the correct sequence; thus, the meaning to which his own statement was leading is confounded. All text sources used agree in the wording, with no glosses to challenge the reversal.

The text, [rāfi' li-al-dhāt lā bi-al-dhāt bal bi-al-'araḍ], we have amended to read, [rāfi' lā li-al-dhāt bal li-al-'araḍ bi-al-dhāt].

1. Regarding the other pairs of opposites, they both may be false.

a) As to adjunctions, both may be false because the substrate may be devoid of both of them.⁴¹

b) As to opposites, both may be false either

1) because there would be no substrate,⁴² or⁴³

2) because the substrate would be described as intermediate, and would be referred to by some relevant word, as 'tepid', for intermediate between 'hot' and 'cold', or referred to as a negation of both extremes, as we say, [something is] "unjust", and "inadmissible." Also, two opposites may both be false at the same time

3) because the substrate would be devoid of them both and of any intermediate, as of something that is transparent and has no color.

c) As to 'privation'/'possession', both may be false either

1) because there would be no substrate, or

2) because the substrate was not ready to possess them.

d. [Other corollaries]:

1. Two 'adjunctions' will be mutually concomitant with each other, both pursuing and reversing in every aspect; that is, when one of them exists the other exists, and when one of them does not exist MS 75a the other does not exist. 'Continuity' is identical to 'inseparability' from the standpoint of existence, while '[mirror-like] reflection' is identical to 'inseparability' from the standpoint of non-existence.

2. Two 'opposites' sometimes

a) will occupy the same substrate alternately, in that one of them, not by the same [at once], will be occupying the substrate, as the living human body is occupied either by health or sickness. The living human body is occupied by one of the two, not by the same [at once], so they follow each other in occupying the substrate; sometimes

b) only one of the two 'opposites' will occupy the substrate, the two not alternately following each other in the substrate. It would

⁴¹ MS gl: As are the living beings [al-ḥayawānāt] generated from the elements, for the terms 'father' and 'son' are not used of them. [From al-'Ibri's commentary on [Baydawi's] *Tawālīf*.]

⁴² MS gl: Since if a body should not exist, then it could not be black or white.

⁴³ Reading with the MS and MS Garrett 989Ha, "or" [aw]; L and T: "and" [wa].

be as it is with motion away from a center and forward to a center. Both of these [movements] are 'contraries', but one of them does not [continue to] occupy the substrate due to the necessity for a moment of rest to intervene between the two [movements], according to popular understanding; sometimes

c) one of the two 'opposites' will occupy the substrate exactly the same [in time as its counterpart], as does the 'whiteness' of 'snow', since [the whiteness] is concomitant to the snow.

e. Inductive reasoning has indicated

1. that the opposition of genuine contradiction will exist only between two completely different species that are subsumed under one basic genus, as are blackness and whiteness. These are two completely different species subsumed under one basic genus, namely, color. Color is a basic genus, above it being the quality of visibility, above the quality of visibility being the quality of sensation, and above the quality of sensation being [the category of] quality, in an absolute sense.⁴⁴ Furthermore, inductive reasoning has indicated

2. that a pair of mutually disparate entities L 150 may not be contradicted together by a single entity in any genuine sense of 'contradiction'. Nor may this logical incompatibility be refuted by [the case of] motion away from a center and the period of rest,—these two being mutually disparate entities that are being contradicted together by a single entity, namely, the motion toward the center,—⁴⁵ because the period of rest would not be an opposition to the movement, but rather, [it would be] between the two [movements] as an opposition of 'privation'/'possession'.

⁴⁴ L, MS Garrett 989Ha and MS Garrett-Yahuda 4486 omit "in an absolute sense" [al-muṭlaq].

⁴⁵ Although Isfahani has just described the two different movements as the 'contraries', in item 4 c) above.

CHAPTER 6: CAUSE AND EFFECT

1. *Classes of cause*

There are four classes of cause.¹ This follows from the fact that what a given entity needs [as a cause] either

a. would be a part [of the entity in need, and thus an 'incomplete cause' and internal to the effect], or

b. it would not [i.e., be a part of the entity in need].

(a.) In the first case, the entity in need, by reason of [its incomplete cause], has being either

1. in a state of actuality, that is, as a 'form' [i.e., this class of cause is the 'formal' cause], or

2. in a state of potentiality, that is, as 'matter' [i.e., this class of cause is the 'material' cause], [the 'matter'] also being called 'element' and 'recipient'.

(b.) In the second case, [the incomplete cause, now external to the effect] has effect either

1. in [the entity's] 'existence' as [its] '[activating] agent' [i.e., this class of cause is the 'effective' cause], or

2. in [the entity's] 'effectiveness' as [its] 'motive' and 'purpose' [i.e., this class of cause is the 'final' cause].

¹ "Aristotle distinguished among 1) the material cause, or, that out of which something arises; 2) the formal cause, or, the pattern or quiddity determining the creation of a thing; 3) the efficient/effective cause, or, the force or agent producing an effect; and 4) the final cause, or, purpose." [Edited from *Dictionary of Philosophy*, D.G. Runes, ed., art. "Cause", by R.B. Winn.]

See the article, "ʿilla", by L. Gardet, in En-I-2, v. 3, esp. pp. 1129-32, "II Philosophy", comprising Shiʿi thought, Falsafa, and ʿIlm al-kalam. See also the article, "sabab, 1. In philosophy and medical science", by R. Arnaldez, in En-I-2, v. 8, pp. 666-667.

Isfahani says:

L 150, T 68, MS 75a

CHAPTER 6: CAUSE AND EFFECT

In Chapter 6 on 'cause' and 'effect' the author presented four topics:

1. The classes of cause; 2. Multiple causes and effects; 3. The difference between the cause's effective part and its limiting condition; 4. Whether one thing can be both receiver and agent [of causation] simultaneously. MS 75b

1. *Classes of cause*

The cause of a thing is what the thing needs. If it should comprise everything that the thing needs, then it would be a 'complete cause'. But if it should comprise [only] a part of what the thing needs, then it would be an 'incomplete cause'.

The conditions [of a cause] and the cessation of any preventing factor enter as elements within the 'complete cause'. If a preventing factor should cease from being present within the complete cause this does not mean that its absence would actively do anything; but rather, it means that, although the intellect might observe that there was a necessity for an effect to come into existence, [still the intellect] would find that [the effect's existence] would not occur unless the preventing factor should be absent.

A 'complete cause', that would include all 'incomplete causes', would not be a single composite entity existent among the individual quiddities,—because an entity could not possibly be composed of both existential and nonexistential factors among the individual quiddities,—but rather, a 'complete cause' would be a single composite entity having existence within the intellect. Thus, it has no concern with any argument [to the effect] that, if an effect should be existent externally, then a complete cause for it ought to be an existent first of all.^{2,3}

² The MS adds, 'in [the external]'—first of all—'and in its essence'.

³ L gl: [Isfahani's] statement, "Thus, there would be no concern with any argument that . . ." is intended either a) to demonstrate the example [hāl] of a complete cause as related to an external existent, or b) to cite the uncertainty of one who tries to place the cessation of a preventing factor within the complete cause. The truth is that external existents do have complete causes that are not obligated

Then, the 'incomplete causes' comprise four [classes]:

1. 'formal', 2. 'material', 3. 'effective', and 4. 'final'.⁴ That is the [standard division], because an 'incomplete cause' would be either

a. [the effective internal] part of the effect, L 151 or it would be

b. external to [the effect], since it is impossible to be the effect itself.

(a.) In the first case, the effect would exist by reason of its [incomplete internal cause] either

1. in [a state of] 'actuality', this being a 'form'⁵ [i.e., this class of cause is the 'formal' cause], as the 'form' of a throne stands in relation to [the throne]; or,

2. in [a state of] 'potentiality', this being 'matter' [i.e., this class of cause is the 'material' cause], as the wood stands in relation to the throne; also, [the incomplete cause] is called an 'element', in regard to T 69 its being a part and that the base of the composite, and also [it is called] the 'recipient', in regard to its being the substrate for the form.

(b.) In the second case, namely, an incomplete cause [but] external to the effect, [the cause] would be either

3. the factor effective in the 'existence' [of the effect], that is, the 'effect's existence' would be due to this [factor], namely, the '[effecting] agent' [i.e., this class of cause is the 'effective' cause], as the carpenter would stand in relation to the throne, or,

to be existents; but rather, the obligation to be existent is upon the active agent, that is the effective cause, since no effect can be conceived except as coming from an existent entity.

With regard to nonexistent entities, the intellect does not require that they have effects, but they must inevitably have input to the efficacy of the effective cause [mu'aththir]. Thus, if an effect [ma'lûl] should exist in the external, then everything whose existence would depend upon [the effect's] existence would be existent in [the external]. And everything whose existence would depend upon [the effect's] nonexistence in [the external] would be nonexistent in [the external]. Therefore, if by the existence of a complete cause I should intend this latter meaning, then it would be true and there would be no dispute over it. But if the intention should be that [the cause] would be a single true existent, then there would be no general obligation to accept that as valid. [From al-Sayyid al-Sharif al-Jurjani's glosses on Isfahani's commentary.]

⁴ Formal [šūriyah], material [māddiyah], effective [fā'iliyah], final [ghā'iyah].

⁵ In both items 1. and 2. here, the MŠ alone predicates the cause as an adjective instead of a noun.

4. the factor effective in the 'effectiveness' of the agent, that is, on account of [this factor] the agent had become activated, and [thus, this factor] is [the agent's] 'motive' and 'purpose', [that is, this class of cause is the 'final cause'].

Regarding the conditions [that limit a cause], and the removal of any preventing factors,⁶ these matters refer back to the completion of the 'material' and the 'effective' causes, so for this reason the author did not set them up independently as a pair of topical subdivisions.

Baydawi said:

L 151, T 69

2. *Multiple causes and effects*

For [the achievement of] a single effect taken as an individual example, no plurality of independent causes would [ever] join together [successfully] to bring it about. If it should be otherwise, then every one [of such single effects] would be able to dispense with every one [of the multiple causes]; and then it would be a case of being able to dispense with them while yet having need for them, which would be impossible.

But two homogeneous entities admissibly may be the caused effects of two disparate entities [as causes], as in the opposition of contradiction.

Also, in the case of a [single] composite entity [as a cause], sometimes there will be a multiplication of its effects.

Likewise, in the case of a simple entity [as a cause], [sometimes there will be the production of multiple effects]

a. if tools and raw materials should be plentiful. But

b. if they should not be plentiful, then in that case all the philosophers have said [that production of multiple effects] would be impossible. Moreover, they have held firmly to the position that the 'source of causation' in the second case (b.) is different from the 'source of causation' in the first case (a.).

For if both [cases] should have entry [i.e., as sources of causation], or if one of them should have [entry] within [an entity's] essence, then a composite structure would be implicit; and if both [cases] should exit from within [the essence], then both would be

⁶ MS: [al-māni']; others have [al-mawāni'].

[its] caused effects. In that case then, the discussion would move back a stage, and the argument implicitly would be an infinite series.

The reply [to you philosophers] is that the 'source of causation' would be an intellectual theory having no external existence.

[To this] a counterobjection [raised by the philosophers] is that corporeality entails the occupation of space, and [they say to us that] in "your scheme" there is a receptivity to existential accidental qualities, while at the same time [you are claiming] "simplicity" [for your simple entity's essence].

Isfahani says:

L 151, T 69, MS 75b

2. *Multiple causes and effects*

For [the achievement of] a single effect taken as an individual example, MS 76a it would be impossible for a group of causes, or a pair of causes, each one of them independent, to join together [successfully] to bring about [that effect]. We shall make that clear in the case of two independent causes.

So, let us say that if two independent causes should join together to achieve a single effect as an individual example, then [the effect] would be a necessary occurrence through each of the two [causes]. [This is] because if [the effect] should not be a necessary occurrence through each of the two [causes], then the case inevitably would be either that [the effect] would be a necessary occurrence L 152 through one of the two [causes], or that it would not.

The first alternative would require that one of the two [causes] not be independent, and the second alternative would require that each one of the two not be an independent cause, while the assumption is that each one of the two would be an independent cause; so this case would be contrary to the assumption.

Now, the necessity for the effect to [occur] through each of the two [causes] makes it necessary⁷ for [the effect] to dispense with each of the two [causes], and to turn away from each of them. Thus, it would be a case of dispensing with each of the two [causes] while simultaneously having need for each one of the two, but that would be an impossible case.

⁷ Presumably this necessity would be present because the action might require the number of causes to be modified, or the action itself to be reversed.

With regard to two homogeneous entities that are identical in species, it would be admissible that they be the caused effects of two different independent causes, in the sense that one of the two homogeneous [effects] would occur through one of the two [causes], and the other [effect] through the other [cause].

That would be like the opposition of contraries between blackness and whiteness, for they would be one species under which are subsumed two homogeneous individual examples. One of them would be the contrary opposition of blackness to whiteness, and the other would be the opposition of whiteness to blackness.

The 'opposition' of the blackness to the whiteness would be caused by the blackness being related to the whiteness, in the sense that the blackness would be the substrate for its 'opposition' to the whiteness, and the 'opposition' being made accidental to [the blackness] would be in relation to the whiteness.

[Likewise], the 'opposition' of the whiteness to the blackness would be caused by the whiteness being related to the blackness, in the sense that the whiteness would be the substrate for its 'opposition' to the blackness, and the 'opposition' being made accidental to [the whiteness] would be in relation to the blackness.

An objection has been raised that the nature⁸ of the species [of a given effect] inevitably either

a. would itself have need for one in particular of the two independent causes, but the need would not qualify [the nature] in relation to any other [cause], nor would [the nature] occur through any other [cause], or

b. [the nature of the species of the effect] would be able to dispense with [the cause], and the need would not qualify [the nature] in relation to [the cause], nor would [the nature] occur through [the cause]. No one should say that the nature of the species, in itself and of its own essence, either would not need [the cause] or would be able to dispense with it.

[In answer], our [Isfahani, and Sunnis] position is that the 'nature', in itself, either would be dependent upon a [particular] independent cause, or it would not. MS 76b The first alternative requires that [the nature] need [the cause], and the second alternative requires that [the nature] be able to dispense with [the cause]. The answer

⁸ The MS adds "single", to read, "the single nature of the species."

to the fundamental uncertainty is that the nature in itself is able to dispense with it.

What the objector said was that [if the nature of the species should not need an independent cause, then] no need [for the cause] would qualify [the nature] in relation to it, nor would the need occur through [the nature].

Our position is that the need would not qualify [the nature of the species] with respect to [the cause]; but rather, the need would qualify only one individual example [of the cause], that is, one of the two homogeneous [causes]. The nature [of the species] has no particular need in itself for either one of the two causes, but it does need some cause. However, since each of the two homogeneous [effects] has needed L 153 a particular cause and has requisitioned that cause for itself, the nature [of the species] attaches itself to that cause, so the homogeneous [effect] includes [the nature] also.

[Baydawi] says that sometimes the effects of a [single] composite entity [as cause] will multiply; that is, it is admissible for a composite entity to be the independent cause of multiple effects, are the [many] effects that originate from each of the four elements.

[He holds] likewise, that sometimes the effects of a simple entity [as cause] will multiply if there should be plenty of tools and raw materials, as [in the case of] the First Intelligence, the source of intellect, soul, and the celestial sphere.

With respect to that Simple Entity who is the One and the True, with whom there is no plurality from any aspect whatsoever, and who is without tool or raw material,⁹ a majority of the philosophers held it was impossible that there would be multiple effects from Him [as a cause]. They held firmly to the position that if two entities should come from the One and the True [Being], then the 'source of causation'¹⁰ of this [particular effect (a.)] would be different from the 'source of causation' of that [particular effect (b.)]. Now, if these two conceptual entities should both have entry, or if one of them should have entry, into the essence of Him [who is the One and the True], then a composite structure [in His essence] would be implicit. And if they both should come out into external existence,

⁹ The MS reverses the order of the two nouns here.

MS gloss: That is, He has no need for tool or raw material.

¹⁰ MS gl: Since the 'source of causation' is that entity that would multiply when the effect would multiply.

or if one should be as breath withheld and the other should come out into external existence, then the implication would be that they were two resulting effects. If they should both come out into external existence, or if the one coming out should be a resulting effect, then T 70 the discussion of this matter would go back a stage, and the argument implicitly would be an infinite series.

The answer [addressed to the philosophers] is that a 'source of causation' would be an intellectual theory that would have no external existence. [This is] because a source of causation would be a matter of adjunction, and [in turn] a matter of adjunction would be a theoretical matter, and a theoretical matter has no need for a cause, so there would be no implication of an infinite series, assuming that both [entities] would have come out into external existence, or that one of them had come out, [from the simple entity's essence].

A counterobjection [raised by the philosophers] is that corporeality entails the occupation of space, and [they say to us that] in "your scheme" there is a receptivity to existential accidental qualities [while] at the same time [you are claiming] 'simplicity' [for your simple entity's essence].

A rebuttal to the this, [namely], the answer given [to the philosophers], is that the term, 'source of causation', is applied in two senses:

a. The first of these [meanings] is that [the source of causation] would be an adjunction that would qualify the essence of the cause as compared to its effect. [This is] from the standpoint that they both would be together, in consideration of their [being a case of] cause/effect, but the discussion is not about this. MS 77a

b. The other meaning is that it would be a cause wherein necessarily there would be an effect from it. In this sense it would precede the effect, since the fact that the cause would be such that necessarily there would be an effect from it would be antecedent in essence to the effect. This [second] sense is different from an adjunction that would qualify the cause as compared to the effect, [an adjunction] that retards itself to be subsequent to the essences of both [cause and effect].

Our discussion concerns this [second] example, and [the cause] would be a single entity if the effect should be single. That entity might itself be precisely the essence of the cause, if the cause should be the cause for its own essence. Or, the entity might be a state qualifying the cause, if it should be a cause L 154 not for its own essence, but rather by reason of some state other [than itself].

But if there should be more than one effect, then there is no doubt that that [causal entity would be different from single]. In that case, the implication would be either that there was an infinite series of 'real' entities, or that there was a composite structure [in the essence of the One], but both alternatives are impossible.

An objection has been raised,¹¹ that

a. if the 'source of causation' should not be a 'real' attribute, then the demonstration would not be complete, due to what was said,¹² while

b. if it should be a 'real' attribute,¹³ then the Agent would have another aspect different from His quiddity, and thus the Agent would not be one in all aspects, although the discussion is to that effect. Furthermore, if this argument should be valid, it would imply that nothing at all would emanate from the One. A full statement of this inference includes two reasons.

1. If a certain entity should emanate from Him, then the fact that He would be the source of it would constitute for Him a different [and additional] role related to this [emanation], which would be either internal to Him [as Agent] or something external, and so on¹⁴ as we complete the argument.

2. If one such entity should emanate from Him, then it would imply that two would be emanating from Him. This is because if one such entity should emanate from Him, then the fact that He would be the source of it would constitute for Him a different [and additional] role. This [new role] may not admissibly be a part of Him, due to what was said, so then it would be external to Him and an effect of His. Therefore, there would be two entities that had emanated from Him.

The answer¹⁵ [to this argument] is that the 'source of causation' would be in the sense that we have set forth, as a real attribute.

¹¹ [This is] on the part of the Mutakallimun, regarding the infinite series argument they all had spoken of.

¹² MS gl: To the effect that it is a theoretical matter [amr i'tibārī].

¹³ MS gl: I.e., one realized externally.

¹⁴ The MS adds the ending phrase here.

¹⁵ MS gl: From the Physician-Philosopher [Ibn Sina].

This present discussion was not located in Ibn Sina's treatment of causation in his *al-Isharat*, pages 11 to 28 (Teheran, 2nd ed. [1982/83]). He begins with mention of the four classes of causation (material, formal, effective, and final) the first two he relates to a triangle in that the sides and shape are the 'material' and 'formal' causes of its 'reality', and the last two he shows as bearing upon the trian-

[The objecting Mutakallimun] said that if the 'source of causation' should be a real attribute, then the Agent would have another aspect, different from His own quiddity, and thus the Agent would not be one in all aspects.

[In answer], our [Isfahani] position is that if the effect should be one, then that meaning would exactly match [the role of] the 'Agent,' and there would be no difficulty in that idea. But if [the effects] should be more than one, then by inherent logic the implication would be that one of the two [alternatives] would be something other than the 'Agent'. From this the inference would be that the 'Agent' would have another aspect, so the 'Agent' would not be one from all aspects. Further, it would imply that there was a discrepancy, since then the implication would be that what we had assumed to be one from all aspects would be something other than one.

Regarding what the objector has said in the first reason, that if a certain entity should emanate from Him, then the fact that He was the source of it would constitute a role that was different from Him, because [the different role] would be a relationship.

But our position would be that His being the source would be according to the second meaning. MS 77b He would not be [merely] related to it, but rather He would be identical with the source, if the source should be of a single entity, and this would not imply any difficulty. From this fact the answer to the second reason would be known.

With respect to the counterobjection [raised by the philosophers] that corporeality would require the occupation of space and a receptivity to existential accidents, that argument collapses. Indeed, even though externally a corporeal body should be a simple one, still there would be within it a multiplicity of aspects, including the quiddity, existence, abstract possibility, L 155 and abstract necessity. And there would be no impossibility in the emanation of a plurality from a simple entity, when it comes to multiple aspects.¹⁶

gle's 'existence' as its 'effective cause' and its 'final cause'. The final cause is explained as bringing 'effectiveness' to the effective cause, and then his discussion rapidly grows more complex. Baydawi had absorbed Ibn Sina's teaching on the subject and used various phases of it.

¹⁶ L 155 gl: With the exception of the One who is True; there may be no multiplication within Him, in any aspect at all.

Baydawi said:

L 155, T 70

3. *The difference between the cause's effective part and its limiting condition*

The '[effective] part' [of the cause] is that [factor] upon which the essence of the cause depends. The 'limiting condition' [of the cause] is that [factor] upon which its causal action depends, [this latter] not being the realization of its essence, as in [the case of] the desiccation of fire.

Isfahani says:

L 155, T 70, MS 77b

3. *The difference between the cause's effective part and its limiting condition*

Topic 3 is on the difference between the 'effective part' [of the cause], that is, the 'active agency' and the 'limiting condition' of the cause. The effective part is that [factor] upon which the essence of the effective cause depends, [that factor] giving the latter subsistence. The limiting condition of the cause is that [factor] upon which the causal action of the cause depends [for its effect] upon something else.

Further, the essence of the cause does not depend for its own realization upon [this limiting condition], as in [the case of] the desiccation of fire. Indeed, it is the desiccation upon which the fire depends for its causal effect upon other things, but the fire's essence does not depend for its own realization upon the desiccation.

Baydawi said:

L 155, T 70

4. *Whether one thing can be both receiver and agent of causation simultaneously*

The doctrine has been taught [by the philosophers] that no single entity may be both a 'passive receiver' and an 'active agent' [of causation] simultaneously.

a. This is because the passive receiver, as a passive receiver, does not consider as necessary what is received, while the active agent [in the transaction], as an active agent, does consider it necessary.

b. And it is because 'receiving' is something other than 'acting', so the source of one of these would not be the source of the other.

a.-a. [In answer to this] our [i.e., Baydawi's] position is that the lack of necessity for a thing according to one theory would not exclude the necessity for it according to another theory. For this reason the doctrine is [generally] held that the relationship of the 'receiver' to 'what is received' would be in accordance with 'general possibility'.

b.-a. Further [in answer], the doctrine that a simple entity would not have multiple effects has preceded [in the discussions].

Isfahani says:

L 155, T 70, MS 77b

4. *Whether one thing can be both receiver and agent of causation simultaneously*

Topic 4 is on the question whether it would be admissible for a single entity to be both a passive receiver for [a given causation] and the active agent of it.¹⁷

The philosophers have held the position that a single entity,—in which there is no plurality from any aspect whatsoever and with which there are no 'tools' or 'materials' [for productivity],—may not be both the receiver of [a given causation] and its [active] agent, for two reasons.

a. [For a single entity], the 'passive reception' [of causation] and the 'active doing' [of causation] would be mutually exclusive [roles] even though [the entity's] relationship to the 'passive reception' [of causation] T 71 and its relationship to the 'active doing' [of causation] should be identical. [This is] from the standpoint that its relationship to the 'passive reception' would fall between the [same] two relations between which its relationship to the 'active doing' had fallen. That is, the [entity's] essence that would be qualified as being a 'passive receptor' is the very same essence that had been qualified as being an 'active doer'. Likewise, the entity that had been qualified as being the '[causation] received' would be the very same entity that would be qualified as being the '[causation] performed'.

Now, that which indicates there is a mutual exclusion between the [role of] 'active doing' and the [role of] 'passive receiving', when

¹⁷ MS gl: The view preferred by the Asha'irah is that this would be admissible. They held that the real and true attributes of God Most High are additional to His essence, and they emanate from it and are subsistent in it.

there is [such] an identity of relationship, is the fact that there would be a mutual exclusion between their two 'concomitants'. That is, the [role of] 'active doing' does lay claim to the '[causation] performed' for its concomitant, but the [role of] 'passive reception', for its concomitant, does not lay claim to the '[causation] received'.

This is because the 'passive receiver', in its role as passive receiver, does not consider necessary the '[causation] received'; however, the 'active agent' [of causation], in its role as L 156 active agent, does consider necessary the '[causation] performed'. Indeed, the passive receiver would be 'capable of handling' the '[causation] received' by way of a specific possibility, but the active agent, in its role as active agent, has an 'obligation' toward the '[causation] performed'.

When this 'obligation' [i.e., to the role of 'active agent' of causation] MS 78a and this 'nonnecessity' [i.e., to the role of 'passive receiver' of causation] are considered as [both] being related to a single entity, then the mutual exclusion between them becomes a reality. And this mutual exclusion between these two concomitants/conclusions logically requires that there be a mutual exclusion between the two roles/premises.¹⁸ And since the 'active doing' and the 'passive receiving' [roles] are mutually exclusive, then no single entity may be both 'receiver' and 'agent' [of causation at once].

If it should be otherwise, then implicitly there would be a joining together between [two] mutually exclusive [characteristic roles] in a single substrate and from a single aspect.

b. The second reason [of the philosophers why one entity cannot be both agent and receiver in the cause/effect situation] is that the 'passive receiving' [role] is not the same as the 'active doing' [role], so neither one of them would be the same as the essence [of the single entity in question]. If both of them, or one of them, should be given entry within the [entity's] essence, then a composite structure would be implicit. And if both of them, or one of them, should come out into external [existence], then the implication would be that the argument was an infinite series.

This is because, in that case, the source of the 'active doing' would be different from the source of the 'passive receiving', so the discussion would transfer to the latter case, and implicitly the argument would be an infinite series.

¹⁸ MS gl: I.e., the 'actively doing' and the 'passively receiving' [al-fa'l wa-al qubūl].

a.-a. [To this first argument Baydawi] replied¹⁹ that for a thing to be considered a nonnecessity to another [disputant] due to some theory would not exclude it from being considered a necessity to him due to another theory.

Now, the role of 'active doing' is different from the role of 'passive receiving'. Thus, for the role of 'passive receiving' the thing might be a nonnecessity, while for the role of 'active doing' it might be a necessity. But what is an impossibility, is that the thing would be both a necessity for the other disputant and also a nonnecessity for him, due to a single theoretical consideration.

Now, because²⁰ a thing being a necessity for another disputant due to one theory does not exclude it from being a nonnecessity for him due to another theory, the doctrine has been formulated

1) that the relationship of the 'passive receiver' to the '[causation] received' would be through 'general possibility', and

2) the relationship of the 'active agent' to the '[causation] performed' would be through '[specific] obligation'; thus,

3) there would be no 'mutual exclusion' between them since there is no 'mutual exclusion' between '[specific] obligation' and 'general possibility'.

b.-a. Further, the doctrine²¹ that a simple entity [as cause] does not produce plural effects has preceded in the discussions.²²

¹⁹ MS gl: To the first reason [raised by the philosophers].

²⁰ Reading with L and T. MS Garrett 989Ha adds only, 'and': "And because . . ."

The MS and MS Garrett-Yahuda 4486 omit the full restatement of the reason, reading: "And for this reason, the doctrine . . ." [wa-li-hādhā qīla].

²¹ MS glosses: 1. This is the reply to the second reason; that is, it is based on the notion that there would be no plurality of resulting effects with a simple entity, but the weakness of the notion has preceded [in the discussions].

2. The answer is for the second reason, and that comprises the necessity for plural effects from a simple entity; [Topic 2] that preceded, discusses the admissibility of [plural effects] and the refutation of their proof, wherein [Isfahani] said that the proof was countered by the fact that corporeality [may be also] a matter of a simple entity.

²² MS gl: In [Baydawi's] statement [at the end of Topic 2 on multiple causes and effects], "The reply [to you philosophers] is that the 'source of causation' would be an intellectual theory."

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SECTION 2: ACCIDENTS

CHAPTER 1: GENERAL TOPICS

1. *The various kinds of accidental qualities*

It is generally understood that accidental qualities are comprised within the nine [Aristotelian] categories [of nonsubstantial being]. These are [as follows]:

a. 'Quantity' is whatever accepts division within its essence, as numbers and measures.

b. 'Quality' is whatever does not accept division within its essence, and the concept of it does not depend on the concept of something else, as colors.

c. 'Place where' is [identifiable as] the specific place where a particular thing exists in real space.

d. 'Time when' is [identifiable as] the specific point when a particular thing exists within a time duration, as an eclipse being at a particular point of time.

e. 'Position' is the structural aspect a particular thing takes because of the relationship of some of its parts to others [of its parts] L 157 and to external features, as [that a person is] standing, sitting, or recumbent.

f. 'Adjunction' is a relationship that qualifies a particular thing in comparison to some other relationship, as fatherhood and sonship.

g. 'Possession as habit' is the structural aspect a particular thing takes because of what closely enfolds it and moves about accordingly as it moves about, as a person who is turbaned and cloaked.

h. 'Activity [as a state]' is the role of a thing [or agent] in being effective, as one who 'makes cuts' [in the routine of his trade as butcher of meat, or artisan of wood or stone], while he is a 'cutter'.

¹ 1. [al-kamm], 2. [al-kayf], 3. [al-ayn], 4. [al-mata'], 5. [al-waḍ'], 6. [al-iḍāfah], 7. [al-milk], 8. [an yaf'al], 9. [an yanfa'il].

i. 'Passivity [as a state]' is the role of a thing in being causally affected by some other [agency], as what is being cut apart, while it is being cut apart.¹

Further, it should be understood that the 'point' and the 'unit of singularity' are both outside this list, and that it is not known what kind these are because of the possibility that each of them or one of them might be categorized together with something lower in rank either as a doctrine or as an accidental quality, and that [the designation] 'accident' is not properly their 'kind', since their accidental nature needs to be demonstrated.²

Isfahani says:

L 157, T 71, MS 78a

SECTION 2: ACCIDENTS

When Baydawi finished Section 1 on 'Universals' of Book 1: 'Realities Possible', he began Section 2 on 'Accidents'. Here he set out four chapters:

1. General topics;³ 2. Quantity; 3. Quality; 4. Accidents of relation.

CHAPTER 1: GENERAL TOPICS

Here there are five topics: 1. The various kinds of accidental qualities; 2. The impossibility of accidents transiting between substrates; 3. Whether an accident can subsist in another accident; 4. Whether accidents have permanent continuance; 5. The impossibility of one accident subsisting in two substrates.

1. *The various kinds of accidental qualities*

You should understand that an 'accident' is 'an existent within a subject-substrate'. By 'subject-substrate' we mean a 'locus-substrate'

² 'Category' is defined by G.R. Morrow in *Dictionary of Philosophy*, ed. D.D. Runes, as:

"In Aristotle's logic 1) the predicate of a proposition; 2) one of the [ten] ultimate modes of being that may be asserted in predication, viz.: substance, [then] quantity, quality, relation, place, time, position, state [of habitual possession], action, passion."

"Substance" not being an accident is listed first, followed by the "nine categories" applying to accidents that Baydawi lists.

³ MS gl: I.e., that are not particular to one, but include all the accidental qualities.

that is independent of what inheres within it, and that subsists in itself, not in that [inherent entity].⁴ By [the expression] “an existent ‘within’ a subject-substrate” we mean being ‘within’ MS 78b an entity, but neither as a part of it nor as validly being separated from it. Indeed, the expression, “such is ‘within’ such”, is an indication, either by way of commonality or by way of similitude, of various meanings: as for example, something being ‘within a time duration’, or ‘in a location’, or ‘in abundance’, or, ‘at [= in a state of] rest’, or ‘in motion’, and ‘the whole being in the part’, and ‘the particular being within the general’. The expression, “in”, in all of these is not there with only a single meaning. Some of the examples are matters of adjunctive relationship, some are matters of inclusion, and some are adverbial [in nature]. The fact that no transition would be admissible in the definition of ‘being in a subject-substrate’ is a semantic context L 158 from which the meaning of the preposition ‘in’ and its use here is to be understood. By his phrase, “not as a part of it”, our author avoids its resembling the case of color quality T 72 ‘being in blackness’, and the case of a living nature quality ‘being in mankind’. It has been shown that these examples are not of something actually being ‘parts of’ [something else], but ‘as if they were’ parts.

It is generally understood that the accidents, subsumed under their genus, are comprised within the nine [Aristotelian] categories [of nonsubstantial being] as follows:

⁴ The distinction between the ‘subject-substrate’ and the ‘locus-substrate’ is made here more clearly by Isfahani than by Ibn Sina in his *Kiṭāb al-Hudūd*.

In his book *The Physical Theory of Kalam*, [Leiden, 1994, p. 58–59, note 14:5] Alnoor Dhanani translates Ibn Sina’s thought in the list of meanings for the term [jawhar]: (The following quotation presents the terms in brackets as an aid.)

“We have already drawn the distinction between ‘subject[-substrate]’ [mawḍūʿ] and ‘[locus-]substrate’ [maḥall]. Thus, by [the ancient philosophers] statement ‘The existent [mawjūd] which is not in a subject[-substrate]’, they mean the existent which differs from [an existent] whose existence is associated with an actually self-subsistent substrate which provides its basis [muqawwam]. It does not matter that the existent is in a substrate which cannot actually subsist without the existent, for, if it is in a ‘[locus-]substrate’ it cannot be in a ‘subject[-substrate].’”

In the present translation, the term, ‘subject-substrate’, will be used to translate [mawḍūʿ] when it is in the context of a ‘substrate’, while the term, ‘substrate’, will be used generally to translate [maḥall] when that meaning is indicated by the context. When [mawḍūʿ] appears in the text followed shortly by the appearance of the contrasting [maḥall], the first one or two examples of the latter will be translated ‘locus-substrate’, in order to sharpen the distinction between the two types of substrate.

a. 'Quantity' is an accident that accepts the division of its essence, whether that be separable, as with numbers, or inseparable, as with measures.

b. 'Quality' is an accident that does not accept the division of its essence, and the conception of it does not depend on the conception of something else; the first statement excludes quantity, and the second excludes the attributes of relationship, as the colors.

c. 'Place where' is [identifiable as] the specific place where a particular thing exists in real space; this notion is complete only when there is a relationship of a thing to the place in which it is, not that it would be identical with this relationship to the place. A 'real place' is constituted by the thing being in its own real place; and there would be no doubt of a thing's being in its own place if its 'relationship' to the place should be one of its concomitants, but not that the thing would be the relationship itself. An 'unreal place' would be constituted by the thing not being in its own place, as when the thing would be in the marketplace.

d. 'Time when' is [identifiable as] the specific point when a particular thing exists within a time duration, as an eclipse being at a certain time. You must understand that many things happen in a moment of a time duration, I mean, in an instant, and do not happen throughout the time duration. One inquires about it saying, "When?" So, the 'when' of time [is identifiable as] the specific point when a particular thing exists, whether throughout a time period or in a moment of it.

e. 'Position' is a structural aspect that characterizes a body regarded from two relationships:

1. the [internal] relation existing between the parts [of this body] and the directions in which they are disposed, in that some are parallel or angled compared to others, and

2. the relation of the parts [of the body] in comparison to features external to the body, the body being MS 79a the subject-substrate for the structural aspect, whether these are places that surround and contain [the body] or they are definite positions [of the body] that are contained, as [that a person is] standing, sitting, recumbent or sprawling.

f. 'Adjunction' is a relationship that qualifies a particular thing in comparison to another relationship. This would be its descriptive definition. But an analysis of it would be that the adjunction is a structure whose quiddity is rationally comparable to the concept of

another structure that [in turn] is also rationally comparable to the concept of the former structure, L 159 equally whether the two structures would have mutual differences, as 'fatherhood' and 'sonship', or whether they would have mutual conformities, as 'brotherhood' among siblings.

Not every relationship is an adjunction. A relation that is not an adjunction would be one where even though its quiddity would be rationally comparable to the concept of some other thing, still that other thing would not be rationally comparable to the concept of the [first] relation. Thus, a relation—in which both sides would not be understood from the standpoint of it being a relation—would not be an adjunction, while a relation—in which both sides would be so understood—would be an adjunction.

g. 'Possession as habit' is the structural aspect a particular thing takes because of what closely enfolds it and moves about accordingly as it moves about, as one turbaned, cloaked, wearing signet ring and armed with a sword. It may be of the essence, as the state of a cat when it is alarmed, or it may be an external quality, as the [relaxed] state of a man when he is wearing his shirt robe [i.e., his jallabiyah].

h. 'Activity [as a state]' is the role of a thing [or agent] in being effective, as one who 'makes cuts' [routinely, as in his trade], while he is 'cutting'.

i. 'Passivity [as a state]' is the role of a thing in being affected by some other thing [or agent], as what is 'being cut apart', while it is being cut apart.

Further, it should be understood that the 'point' and the 'unit of singularity' are both outside this list,³ so these two entities contradict anyone who would make the accidents [only] nine [in category]. But for anyone who arranges the accidents, after they have been subsumed under genus, to be comprised within the nine [categories], there would be no contradiction because of these two entities. However, to say with certainty that the genera of the accidents are comprised within the nine [categories] would depend upon a clear demonstration [of the following points].

1. The governing criterion of each of these categories over what is subsumed under it does not involve either commonality or analogy,

³ MS gl: I.e., outside the nine categories.

but it does involve agreement.⁶ Further, it does not involve a statement of logical inference that would require everything under it to be the same.

2. There is no genus other than these nine [categories].

3. No two MS 79b or more of [the accidents] are subsumed under one genus.⁷

4. Not one of [the nine categories] comprises the complete quiddity of the particulars subsumed under it.

5. The accident is not constituted as the genus for these [nine categories], but the verification of that [fact] is very difficult. There is nothing in the books that have come down to us on this science that affords verification of the truth about this matter. In truth, the accident is not the genus for these nine categories, because the accidental nature of these genera needs to be demonstrated, and so the accident is not the genus for them; otherwise, they would not need any demonstration.⁸ The genus is a matter of the essence, and a matter of the essence does not need demonstration.

Baydawi said:

L 159, T 72

2. *The impossibility of accidents transiting between substrates*

The majority of scholars are agreed on this [fact as stated in the heading]. They argued that the individuation of [accident] units would not be due

a. to themselves L 160 nor

b. to their concomitants; otherwise, their kinds would be comprised within [the number of] their individual examples. Nor would [the individuation] be due

c. to [other secondary] accidents that inhered within [the primary accidents]; because such inhering would be dependent on [the secondary accidents] having been chosen specifically, and this would have been due to their locus-substrates. Therefore, [accidents] would not make any transition from [the substrates].

⁶ Orthography varies: L, T, MS Garrett 989Ha and MS Garrett-Yahuda 4486: [al-tawāṭiʾ]; the MS: [tawāṭuʾ].

⁷ The MS indicates "genus" is indefinite and omits "one."

⁸ The preceding sentence is omitted from T, and is a marginal insertion in L. L varies slightly from the MS and MS Garrett 989Ha: L reads, [lam takun muf-taqirah ilaʾ]; The MSS read, [lam yaftaqirū ilaʾ].

This is different from [the case of] a body. For in the individuation process [of a body, at first] it has no need for any confines, but rather [it does so later] in its keeping separate, and it comes into existence in consideration of [these] two domains, [namely, existence and individuation].

Isfahani says:

L 160, T 72, MS 79b

2. *The impossibility of accidents transiting between substrates*

The majority of scholars are agreed that it is impossible for accidents to transit [between substrates]. They argued that the factor requiring the individuation of the units of [accidental quality] would not be

- a. their quiddities, nor
- b. their concomitants,—otherwise [the number of] their kinds would be comprised within [the number of] their individual examples,—nor would it be
- c. the [secondary accidental] qualities inhering within [the primary accidents], because such an inherence by the [secondary] qualities within them [again] would depend upon the individuation of these [secondary interior qualities] and their being chosen,—so, if the individuation [of the primary accidents] should depend upon the [secondary] qualities inhering within [the primary accidents], then there would be an implicit circular argument. Nor would [the factor requiring the individuation of an accident] be
- d. some factor separate from [the accidents]; otherwise, they would have no need for T 73 a subject-substrate, since in both its existence and in its individuation it would be self-sufficient without a subject-substrate. An entity that would be self-sufficient for both its own existence and its individuation without a locus-substrate would not be at loss for a locus-substrate, and so would be self-sufficient without it, but this [reasoning] is invalid.

Therefore, it is determined that the individuation of [accidents] would be due either to their locus-substrates,⁹ or to something [already] inherent within [these locus-substrates]. In either case, [an accident] would have need for its subject-substrate in its individuation, and

⁹ MS gl: [bi-maḥāliḥā] this being 'matter'.

thus the subject-substrate [clearly] would be one of [the accident's] individuating causes. Thus, for [the accident] to make a transition move away from [its individuating cause] would not be an appropriate step. [This is] because, if the subject-substrate should be the individuating cause for the [accident], then [this accident in turn] would need its subject-substrate to be [already] individuated.¹⁰

However, an ambiguous subject-substrate, in view of its ambiguity, does not have external existence, and whatever is not of that [sort, i.e., having 'external existence']¹¹ could not promote the individuation of whatever was inhering within it. Therefore, the [external] existence of an accident would not become realized unless by reason of a subject-substrate that would give it [individuated] particularity. Thus, any transition [away from this subject-substrate] would not be an appropriate step for it.

This is different from the case of a body in its need for a space [to occupy]. For its 'existence' and for its 'individuation' the body does not need space [to occupy],¹² but rather, MS 80a with regard to its own particularity and physical boundary the body does have need for a particular space [to occupy]. And there is nothing to prevent it from making a transition from one [such] space to another. This [freedom of transition] is in view of its being both an existent and an individual, but not in view of its occupying a particular space, because its occupying a particular space comes about in regard to its two domains, [i.e., its existence and its individuality].

Baydawi said:

L 160, T 73

3. *Whether an accident can subsist in another accident*

The Mutakallimun taught that it is impossible for an accident to subsist in an accident, holding firmly to the doctrine that the mean-

¹⁰ [mushakhkhiṣan]—[mushakhkhaṣan]: Vowelling of these two participles is provided by the MS.

¹¹ [mā lā yakūn kadhālik]: This clause on its face somewhat awkwardly misleads the reader with its repetition of the negative sign [lā]. But the writer's negation is not of the whole clause, "does not have external existence"; but rather, his negation is only of part of the clause, "external existence". The editors of T removed the second negation sign, to read affirmatively, "and whatever is of that sort" . . . However, L, the MS, MS Garrett 989Ha, and MS Garrett-Yahuda 4486 all agree in leaving the double negative in place, with the reading as given in the translation.

¹² MS gl: i.e., one that gives it particularity [mu'ayyin].

ing of 'subsistence' is the occupation [by an accident] of a particular space following upon the occupation [of the same space] by [the accident's] substrate, and that [substrate] that was followed was nothing other than 'substance'. But this is a weak argument, because 'subsistence' is a specific kind of 'qualifying term'.¹³

The attributes of God Most High subsist in His essence, although His occupation of a particular space is an impossibility. So, if this [fact we have just mentioned] should be granted, then why would it not be admissible that the occupation of [an accident's] substrate should be subsequent to [the accident's] occupation of the substrate of L 161 another entity, namely, substance?

The philosophers have an argument that quickness and slowness are two accidental qualities having [their] subsistence in motion-change, and that the latter is the 'subject qualified'¹⁴ by them both, aside from [any consideration of the moving] body.

Isfahani says:

L 161, T 73, MS 80a

3. *Whether an accident can subsist in another accident*

The majority of the Mutakallimun rejected the notion of the subsistence of an accident in an accident, holding firmly to the doctrine that the meaning of the 'subsistence' of one entity (a) in another [second entity] (b) was that [entity (a)] occupied a particular space after the other entity (b) already was occupying it, and that the other entity (b), that was followed, was nothing other than 'substance'.

This is because, if [that entity (=b)] should be an 'accidental quality' [instead of 'substance'], then its occupation of [that] particular space [necessarily] would be after the occupation of [the same space] by the 'other entity' (=a). Further, that 'other entity' (=a) inevitably would be either the entity that was inhering there first (=b), or some other than it (=a, or c).

If [the 'other entity'] should be the first alternative (=b), then the implication is that each of the two (a, b) occurred within the other (a in b, b in a), after the 'other entity' (b, a) had occurred within the ['first' (b in a, a in b)]; thus, a circular argument would be implicit, and it would be impossible.

¹³ 'Qualifying term' or, descriptive factor [nā'it].

¹⁴ 'Subject qualified' or, described factor [man'ūtah].

If [the 'other entity'] should be the second alternative (=a, or c), then the implication is that there was a preference situation without an 'agent of preferral', since making one of them (a/c or b) subsist in the other (b or a/c) would not be preferable to the reverse. Then the implication would be that each of them (a/c, or b) was subsisting in [the 'other entity' (b, a/c)],¹⁵ which would be 'the substance'.

[Baydawi] stated that that firmly held doctrine was weak, since we do not grant that the subsistence of one entity within a second entity would be [merely] another way of describing its occupation of a particular space after the second entity had [already] been occupying [the same space]. Rather, 'subsistence' is a way of saying that the first of the two entities becomes specific to the other [second one] in such a way that the first is a 'descriptive factor' while the second is the 'described factor', even though the quiddity of that specification may not be known.¹⁶ The descriptive factor is called an 'inherent' and the object described a '[locus-]substrate'.

The attributes of God Most High subsist in His essence, although it is an impossibility that He would occupy a particular space. Now, if it should be granted that subsistence is the occupation by one entity of a particular space after its own substrate had come to occupy the same space, then why would it not be admissible that the [first entity's] occupation of its substrate would be subsequent to [its] having occupied another substrate, namely, 'substance'?

[Baydawi's] expression,¹⁷ "the implication would be that there was a preference situation without an agent of preferral."

¹⁵ The MS codes the pronoun's antecedent so.

"... 'Accident' is defined as that which cannot subsist by itself but only in a substance." See the article "'Araq'" in En-I-2, by F. Rahman. To the Mutakallimun it appeared inconceivable that a 'substrate' would not be 'substance'; thus, an accident required substance in which to inhere and receive subsistence. The involved argument cited by Baydawi and Isfahani is intended to demonstrate this requirement, but, as they point out, the argument nevertheless is weak.

In his *Compendium of Thought (Muhassal)* pp. 112-118, Fakhr al-Din Razi covers the same points Baydawi discusses in this chapter, especially topics 2 through 5. However, this involved argument is not presented.

¹⁶ MS gl: I.e., it would not be known whether the specification would be by way of an inhering factor, or a substrate, or an attribute.

¹⁷ Here and in the next quote, Baydawi's written text does not contain the respective statement; instead, it comes in Isfahani's own development of Baydawi's argument. There is the possibility that Isfahani learned of this material from his father, who in turn had been Baydawi's pupil. It may have been from Baydawi's oral supplementary argument that had not been incorporated into the concise written text.

Our [Isfahani's] position is that we do not grant this.

[Baydawi's] expression, "since making one of them subsist in the other would not be preferable to the reverse."

Our position is that it would be admissible for one of the two [entities] to be subsisting in the second, and the second to be subsisting in 'substance.' Thus [Baydawi] set [the example] up so that the other [second] entity would not be subsisting in the first one; because, if [the second] should not be inhering within [the first], then his setting [the first] up as subsisting in the second would be [shown to be] preferable to the reverse action, because [the first entity] would be inhering [already] within [the second entity].

The philosophers argued for the subsistence of an accident within an accident MS 80b in [saying] that both quickness and slowness are accidents that subsist in the motion-change that subsists in a body. The motion-change is the 'object described' by both the quickness and the slowness, aside from [any consideration of the moving] body.

Baydawi said:

L 161, T 73

4. *Whether accidents have permanent continuance*

Shaykh [al-Ash'ari] disallowed this [notion of accidents having permanent continuance].¹⁸ He held firmly to the doctrine

a. that 'continuance' [itself] was an accident, so it would not subsist in an accident;¹⁹ and

b. if an accident should have 'continuance', then its vanishing would be impossible, because it would not vanish: neither

1. because of itself, due to the impossibility of a possible reality being inverted to something impossible, nor

Isfahani's attribution of these and other such 'quotes' to Baydawi could thus be on the strength of his father's memory and class notes. If Isfahani, as described in his biographical sketch in the Preface, had attended Baydawi's lectures as a child or as a youth, with his father, then very possibly the attribution comes out of his own memory and notes.

¹⁸ Our author and commentator both emphasize al-Ash'ari as the teacher of this doctrine. F.D. Razi, presents it as the agreed doctrine of the Asha'irah school (*Muhassal*, p. 114).

¹⁹ For the Mutakallimun this would be the conclusive argument, following the previous topic closely as it does.

2. because of an effective cause,

a) that was existential, as when an opposite might come to supplant it, for [such an effective cause's] existence would be conditioned upon the absence of L 162 another opposing [cause], nor

b) [because of an effective cause] that was nonexistential, as when an [opposing] condition might vanish, for that would be the substance [qualified by the accident], and then the discussion would revert back to it, and a circular argument would be implicit, nor

3. [because of] an agent, for inevitably that would have an effect and thus would be a cause of existence, not a cause of non-existence.

a.-a. Answer [is made] to the first point by prohibiting the premises, and

b.-a. [the answer] to the second point is in the fact that its own essence would require its nonexistence after some periods of time.

1.2.3.-a. [Answers to the three subdivisions of 'b.' are that] the force of necessity would be a commonality, whether as an effective cause distinct from [the accident's] substrate, or as the exclusion of a condition that [itself] would be a nonpermanent accident, or as an agent. Further, we do not grant that the agent's effect would not be a continually renewable nonexistence.

Al-Nazzam held firmly to this [second] reason [i.e., item #2] in [arguing] the impossibility of the permanent continuance of bodies.²⁰

Isfahani says:

L 162, T 73, MS 80b

4. *Whether accidents have permanent continuance*

Shaykh Abu al-Hasan al-Ash'ari disallowed this [notion of the] permanent continuance of accidents, and he held firmly [to his position] for two reasons.

²⁰ Presumably, al-Nazzam spoke of the impossibility of permanent continuance in bodies in this context because bodies were seen as the necessary substrates of accidents, and if bodies had no permanent continuance then the same could be said of accidents. Not all the accidents in a body would be apparent in a first investigation. Many would appear later, previously having been 'latent'. [Reference regarding this feature is to the article, "kumun" in En-I-2 by J. van Ess.] "The only accident which al-Nazzam acknowledged was movement; . . ." [Sentence quoted from the article, "al-Nazzam" in En-I-2, also by J. van Ess.] However, this accident [movement] had wide applications.

a. Permanent 'continuance' is an accident that subsists [only] in the essence of the Permanent One [al-Baqi], and therefore, it would not subsist in an accident. If it were otherwise, then the implication would be that an accident would be subsisting in an accident. But since permanent 'continuance' would not subsist in an accident, then no accident would have permanent 'continuance'.

b. If an accident should have permanent 'continuance', then its vanishing would be impossible. But this conclusion is obviously false, and that implies that the premise is false.

An explanation of the logical necessity [Ash'ari] used here is that

1. the ['continuing'] accident would not vanish [from its substrate] because of itself, since if it should vanish because of itself then it would be an impossibility of its own essence, and this would imply that a possible reality could be inverted to something impossible, since before it vanished it had been a possible reality.

2. Nor would [the accident] vanish [from its substrate] because of an effective cause, that is,

a) a cause necessary in and of itself, as when an opposite [cause] comes to supplant that accident T 74 as it vanished from its substrate, since the presence of an opposing factor that had come into the substrate would be conditioned upon the absence from the substrate of any other opposite [cause]. So, if the [first] other opposing factor should be made to vanish from the substrate by the [second] opposing factor coming into the substrate, then a circular argument would be implicit. Nor would the accident vanish from [the substrate]

b) because of an effective cause that was necessary but non-existential, such as when the condition vanishes for the existence of the accident, [an accident] that [then itself] vanishes. The condition for the existence of the vanishing accident would be the 'substance' [qualified by the accident], and the discussion would then revert back to it, and a circular argument would be implicit.—[Indeed, the argument would be circular] because of the position taken that the absence of the 'substance' would not be due to itself, [but rather], it would be due either

1) to an existential effective cause, as an opposite coming to supplant [the substance], so the argument would be circular; or

2) to a nonexistential effective cause, as the vanishing of a condition, and if that condition should be an 'accident' then implicitly the argument would be circular; and likewise if [the condition]

should be 'substance' then implicitly the argument would be circular. If it should be otherwise, then every substance would be conditioned by some other substance [and so on] without end, but this would be impossible.—

3. Nor would the accident vanish from the substrate because of a 'free choice agent', because the free choice agent inevitably would have an existential effect, since nonexistence would have no effect, and thus the free choice agent would be an existential cause, not nonexistential. But this is different from the assumption.

a.-a. The answer to the first reason is to prohibit MS 81a both premises. That is, we do not grant that permanent continuance would be an accident L 163 subsisting in the One who permanently continues, nor do we grant that it would not be admissible for an accident to subsist in an accident.

(b.) 1.-a. The reply to the [first part of the] second reason is that the vanishing of the accident from [the substrate] is due to itself, in that the nonexistence of the accident would be required by the essence of the accident after some periods of time had elapsed, that is, after it had remained for two or more time periods.

You [opposing disputants] might claim that in that case the implication would be that something possible had been inverted to something impossible. But our position is that the [force of] necessity would be a commonality, and thus if the accident should not remain [even] two periods of time, then the implication would be that its essence required it to be nonexistent after [having been] existent, and so it would be necessary for a possible reality to be inverted to an impossibility.

(b.) 2.a.-a. Or, we may say that the vanishing of an accident from a substrate would be because of an effective cause that was existential and distinct from the substrate of the accident. That [case] would be the coming of a factor opposed to that vanishing accident to another substrate; and the coming of an opposing factor to another substrate would not be conditional upon the vanishing of the other accident from its substrate, so it would not imply a circular argument.

(b.) 2.b.-a. Or, we may say that the vanishing of an accident from its substrate would be because of an effective cause that was non-existential. That would be the exclusion of a condition, namely, an accident the existence of which would not continue. Now, accidents are of two classes:

1) fixed in essence and continuing in existence, as are 'tastes', and

2) not fixed in essence, as are 'motion-change' and 'sound'. The condition for the existence of an accident fixed in essence would be an accident that was not continuous of existence, so that when the latter would be nonexistent, then the accident of permanent nature would vanish.

(b.) 3.-a. Or, we may say that the vanishing of an accident from its substrate would be because of a free choice agent, but we do not grant that its effect could not be nonexistent. Indeed, it is admissible that a renewable nonexistence would be the effect of a free choice agent.

Al-Nazzam held firmly to the second [main] reason in his argument that the permanent continuance of bodies was impossible, and that if bodies should have permanent continuance, then it would be impossible for them to vanish. But his conclusion is false, because bodies will be excluded at the Resurrection. To explain the necessity in his logic here, it is that a body would not vanish because of itself, nor because of an existential effective cause, nor because of a nonexistential effective cause, nor because of a free choice agent. You have already come to know both the full statement of this [second main] reason, and the corrupt nature of its premises.

Baydawi said:

L 163, T 74

5. *The impossibility of one accident subsisting in two substrates at once*

[The proposition of this topic is in the negative], since if the notion should be positively admissible, then it would be admissible for one body to exist in two places [at once], and it would be impossible to affirm with certainty that the blackness sensately perceived in a given substrate would be something other than what would be sensately perceived in another [substrate], and the implication would be that there had been a joining of two independent causes to bear upon one individual entity.

It was asserted by some of the earliest philosophers that adjunctive relationships, such as adjacency and proximity can become accidental to two entities. And Abu Hashim [al-Jubba'i] stated that any composite entity would have its subsistence in two substances; otherwise,

it would not be prevented from coming apart as in the case of two adjacent entities.²¹ But [the composite] would not subsist in more than two [substances]; otherwise, it would be nonexistent if the third [component] should be lacking, and the two remaining components would not continue as a composite [of two partial composites].

The reply [to these problems] is that to transform the difficulty of their becoming separated into the need of an entity in [the process of] composition for the two of them L 164 would not be more appropriate than to transform the case into the need of one of them for the other, or for a free choice agent to attach them [to each other].

Isfahani says:

L 164, T 74, MS 81a

5. *The impossibility of one accident subsisting in two substrates at once*

[The proposition of this topic is in the negative], because, if it should be admissible for one accident to subsist in two substrates, then it would be admissible for one body to exist in two [different] locations. Indeed, if it should be admissible in the intellect for the inherent in one substrate MS 81b to be the very same inherent in [another] substrate, then it would be admissible in the intellect for a body occurring in one location to be the very same body that is occurring in another location; thus, one body would be occurring in two locations.

This requires an observation. The author draws an analogy between the inherence of an accident in a subject-substrate with the occurrence of a body in a certain place, [a body] that could not possibly be in two places [at once]. Now, if that [comparison] should be valid, then it could be said that it would be impossible for two accidents to be joined in a single locus-substrate, just as by analogy it would be impossible for two bodies to occupy a single place. However, the joining together of many accidental qualities in a single substrate, [qualities] such as blackness, motion-change, a composite structure, and a living nature, would not be something the intellect would reject.

²¹ F.D. Razi, *Muhassal*, p. 115, is the probable source for the two preceding sentences here.

Moreover, if it should be admissible for one accident to subsist in two substrates, then it would be impossible to affirm with certainty that the blackness sensately perceived as being in this [particular] substrate would be different from the blackness sensately perceived as being in that [other] substrate; but this conclusion would be false. For an affirmation can be made with certainty that the blackness sensately perceived to be in this [particular] substrate is indeed different from the blackness sensately perceived to be in that other substrate.

An explanation of the inherent necessity in the logic used here is that, if it should be admissible for a single accident to subsist in two substrates [at once], then it would be admissible for a single [example] of blackness to subsist in two substrates, and it would be conceivable that the blackness sensately perceived as being in this [particular] substrate would be identical with the blackness sensately perceived as being in that other substrate.

Furthermore, if it should be admissible for one accident to subsist in two substrates, then it would be admissible for two independent causes to join together to bear upon a single effect in an individual example; but this conclusion would be obviously false. T 75 To explain the logic used here, it is that a single accident as an individual has an independent cause that is its subject-substrate, and [also] is its locus-substrate and part of [its independent cause]. Thus, if that [same] single accident as an individual should happen to come into another [second] locus-substrate, then it would have an [other] independent cause which would be its [second] subject-substrate, and [also] would be the [other second] locus-substrate and part of [the other second independent cause]. The [first] independent cause, of which the [first] subject-substrate would be a part, would be other than the [second] independent cause, of which the other [second] subject-substrate would be a part. Therefore, two independent causes would have joined together to bear upon a single accident as an individual.

It was asserted by a group of the early scholars, that is, the old philosophers, that adjunctive qualities, such as 'adjacency' and 'proximity', do qualify two entities. Abu Hashim [al-Jubba'i] held that 'composition of structure'²² constitutes a single accident that subsists in

²² L. omits "composition of structure" [al-ta'lif].

two 'substances', because if 'composition of structure' should not subsist in two 'substances', then the two 'substances' compounded together would not be prevented from coming apart, as it is with two adjacent [structures], for they are not prevented from coming apart.

Abu Hashim stated further that a 'composition of structure' would not subsist in more than two 'substances'. MS 82a This is because, if the composite should be subsisting in more than two 'substances', then the composite would become nonexistent by the abolition of the third 'substance', since the two 'substances' remaining after the third was abolished would not continue on as two [partial] composites.²³

The reply [to these problems] is that to transform [the case of] the difficulty of separating two substances that are [elements of] composite structures into [a case of] the need of the composite entity for both of them, in order to make it necessary for one ['composite structure'] accident to be subsisting in two ['substance'] substrates, which would be impossible, would not be more appropriate than to transform the difficulty of separating them into the need of one of them for the other, or into a free choice agent's act of bonding [them together].

Understand that the notion of one accident subsisting in two substrates may be understood in two senses: a) one accident inhering in a substrate would be the same [accident] that would be inhering in another substrate, this is false, in line with what has been set forth; b) one accident inhering in the sum of two entities that have become a single substrate for it by their joining together, there is no argument outstanding that makes this an impossibility.

The old philosophers held the doctrine that a single accident²⁴ subsisted in a substrate divided into many parts, just as a unit of singularity subsists in a unit of ten, and a triangle in the totality of

²³ Richard M. Frank, in his *Beings and Their Attributes*, [Albany, N.Y.: State University of New York Press, 1978, pp. 109–111.] described the thinking of the early Mu'tazilah regarding the case of the accidental quality, 'living', as characterizing the composite structure 'man'. Man is a composite from a number of aspects and is composed of various substances. 'Life' qualifies the whole 'man' as well as all the parts and subdivisions of the concept. So if 'life' is lacking, then the parts of the 'composite' do not remain together as functioning 'partial composites'. Thus, we may judge that there is a parallel between the notion of 'life' and 'man' and Abu Hashim's notion of 'the composition of structure' and the two or three substances.

²⁴ The MS adds here, "in an individual example" [bi-al-shakhs].

the three surrounding sides in one²⁵ plane, and the 'living nature' in a bodily structure²⁶ subdivided into its members.

Abu Hashim [al-Jubba'i] held that a single composite structure would subsist in two substances only because, if it were to be without any separation from each other [taking place] in the composite structure, aside from the two being [merely] adjacent to each other, then a [strengthening] cause would be needed. And if that cause should subsist in each of the two [substances], then it would not be impossible to separate the two.

But [Abu Hashim] did not say that [the composite structure] would subsist in more than two [substances]. This is because if a composite structure should subsist in three substances, and then if one [substance] should be made to vanish from those joined together, while two [of them] were remaining, then it would be necessary to abolish the [whole] 'composite structure' because of the abolition of its substrate, and the two remaining [substances] would not continue on as two [partial] composites, for that would be contrary to the pattern of actual existence. And there would be nothing to imply that one accident was subsisting in two substrates, an impossible meaning.

²⁵ Reading with T and the MS; L and MS Garrett 989Ha omit "one."

²⁶ Three glosses in the MS defining this term for 'bodily structure', [binyah]:

1. Among the Mutakallimun it is a term for the 'atoms', and among the philosophers it is a term for 'form' and 'primal matter'.

2. Among the philosophers it is a term for a body compounded from the four elements in such a way that from its compounding there occurs a 'blend' [mizāj] that is the condition for the 'living nature'.

3. Among the Mutakallimun it is a term for the totality of individual substances, not the least of which is the 'living nature'.

CHAPTER 2: QUANTITY

1. *Classes of quantity*

Quantity is divisible either

- a. into parts that have no commonality in a single boundary, this [division] being a 'discontinuity', and is called 'number', or
- b. into parts that do have a commonality [in a single boundary], this [division] being a 'continuity'.

If [a continuous quantity] is not permanent in its essence, then it is a 'time duration'. But if it should be [permanent in its essence] then it would be a 'quantitative measure'.

If [the measure] should be divisible in one dimension, then it is a 'line', and at this [line] the 'surface' terminates, just as [the line itself] terminates in a 'point'. If [the measure] should be divisible in two dimensions, then it is a 'surface', or a 'two-dimensional form',¹ and at this [surface] L 166 the 'body' terminates. If [the measure] should be divisible in three dimensions, then it would be [either] a 'geometrical teaching body',² or a 'thick object', and the thickness is the filling material between the [outer] surfaces.

If you regard the entity as a descending [measure], then it would be 'depth', and if you regard it as an ascending [measure], then it would be 'height'.³ Sometimes [the term] 'depth' is applied to pre-cut [wood] pieces for 'length'.

¹ L omits [wa-al-basf]. The context of [al-basf] is that of something spread out and flat, as a mat, or any flat area, essentially two-dimensional; thus, it would be a two-dimensional body, as a square or a triangle, etc.

² [al-jism al-ta'limi], literally, 'a teaching body', or object, i.e., a three-dimensional artificial model, probably constructed of wood or stone, used in teaching geometry. From al-Sharif al-Jurjani's *Ta'rifat* there is this definition: "The 'geometrical teaching body' is receptive to division in length, width and depth, and it is the boundary of a surface that also would be the boundary of a natural body. It is called a 'teaching body' since studies are made of it in the educational sciences, namely the mathematical ones that investigate the states of both discontinuous and continuous quantity related to teaching and mathematics. These begin with it in their instruction and drill for the young men because it is more easily perceived."

'Length' is the dimension that is posited first of all, and it is held to be the longer of two measurements of extension that intersect on a surface. [As 'height'] it is the measurement that is taken from the head of a man to his foot, and also from the back of any of the four footed creatures to its lowest part.

'Width' is [another measurement of quantity], and it is the dimension posited in the second place, or as the shorter [of two intersecting measurements of] extension. It is the [dimension] taken from the right [side] of a man to his left, and from the head of an animal to its tail.

Length, width and depth are terms of quantitative measure that are taken along with the respective adjunctive relationships.

Isfahani says:

L 166, T 75, MS 82a

CHAPTER 2: QUANTITY

After the author finished Chapter 1 on general topics about accidents, he presented studies related to each of the nine categories of accidents. He began with 'quantity', because it is more generally dispersed in existence³ than 'quality', and it is more apparent in existence than the seven [other categories of] relational accidents, because the accidents of relationship are not as well fixed in the essence of their subject-substrate as is the category of 'quantity'. MS 82b So he set Chapter 2 for quantity-related topics, of which there are five:

1. The classes of quantity; 2. Quantity in its essence and as an accident; 3. On the nonexistential nature of quantities; 4. Time duration; 5. Place [and void].

1. *Classes of quantity* L 166, T 75, MS 82b

'Quantity' is divided either

a. into parts that have no commonality in a single boundary at which the parts resulting from the division would find their own

³ The ascending measure, 'height', may be taken as commonly referring to landscape features and architectural structures, that would be naturally above the reach of a person's hand. 'Length' is applied here to living beings and objects of lesser size, 'height' and 'tallness' being other English terms for a human body's 'length'.

⁴ MS gl: Because of the existence of 'quantity' in all bodies, without [making any reference to] 'quality'.

boundary, this being a 'discontinuity', and is called 'number'; or, [quantity] is divided

b. into parts that do have commonality in a single boundary, this [kind] being a 'continuity'.

If a 'continuous quantity' is not permanent in its essence, then it would be a 'time duration', but if it is permanent in its essence, that is, the parts that it is supposed to have would be constant, then it would be a 'quantitative measure'.

If the 'quantitative measure' should be divisible in one dimension only, then it would be a 'line', and at the 'line' a 'surface' terminates, just as the 'line' itself terminates in a 'point'. If [the measure] should be divisible in two dimensions only, then it would be a [flat] 'surface', or a 'two-dimensional form', and at the surface the body terminates. If it should be divisible in three dimensions, then it would be a 'geometrical teaching body',⁵ or a 'thick' ['three-dimensional'] object, the 'thickness' being the name for the material filling in between the [outer] surfaces.

If [the measure] is considered a descending [measure], then it would be 'depth'. If [the measure] is considered an ascending measure, then it would be 'height'.⁶ The term, 'depth', is sometimes applied T 76 to the dimension of precut [wood] pieces⁷ or 'length'.⁸

'Length' is the dimension that is posited first of all, and it is held that 'length' is the longer [i.e., perpendicular] of the two lines of extension that intersect L 167 on a surface. The dimension taken from the head of a man to his foot⁹ would be the 'height' [or, 'length'] of a man, and the dimension taken from the back of any of the four-footed creatures to its lowest point would be its 'height'.

'Width' is the dimension that is posited second, and it is held that the 'width' is the shorter [i.e., horizontal] dimension of [the two lines

⁵ 'Two-dimensional form' = [al-basīṭ]; a 'geometrical teaching body' = [al-jism al-ta'ālīmī], i.e., "three-dimensional."

⁶ MS gl: In this regard, one would say, "The 'depth' of a well," and "the 'height' of a lighthouse." [Cf. also the note for the passage in Baydawi's text.]

⁷ Orthography varies: T and MS Garrett 989Ha: [maqāṭi']; the MS: [muqāṭi']; L: [mutaqāṭi'], although in the Baydawi text portion L reads [maqāṭi'].

⁸ MS gl: Sometimes the term, 'depth', is applied to the dimension that is cut for 'length' and 'width', not only for the dimension cut for 'length', as the author [Baydawi] stated; otherwise, the 'width' also would be 'depth' ['amq], because it would be a dimension cut for 'length'. [From 'Ibri's commentary on Baydawi's *Tawālīf*].

⁹ MS: 'feet'.

of surface] extension. The dimension taken from the right [side] of a man to his left would be the 'width' of the man, and the dimension taken from the head of an animal to its tail would be the 'width' [or, 'extension']¹⁰ of the animal.¹¹

The length, width and depth are quantitative measures taken [into consideration] along with their 'adjunctive relationships', for 'dimension' is a measure of quantity. If [the dimension] is posited as the primary [measure], or it is longer in relationship to another line of extension, then the dimension is [called] 'length'. If it is posited as the secondary measure, or it is shorter than another line of extension, then it is [called] 'width'. If it is posited as an intersection [i.e., of a line running from front to back] with the length, then it is called 'depth'.

Baydawi said:

L 167, T 76

2. *Quantity in its essence and as an accident*

a. 'Quantity in its essence' is that which is a quantity in itself.

b. 'Quantity as an accident'¹² is

1. whatever inheres in a 'quantity [in its essence]', as does 'time duration'. Now, even though [time duration] is

a) 'continuous in itself', it is [also]

b) 'continuous as an accident', because it subsists in the 'motion-change' that corresponds to 'distance', and [time duration] is also

c) 'discontinuous', because it is divisible into hours.

2. Or, ['quantity as an accident'] is a substrate for ['quantity in its essence'], as is a body and anything measured by number.

3. Or, ['quantity as an accident'] inheres in its own substrate, as one would say, "There is more whiteness on this [white and black spotted] piebald horse."

¹⁰ I.e., as demonstrated by the outstretched arms of a person who is measuring.

¹¹ Conventions for such measurements vary: human overall 'length' would be 'height', while 'width' and 'breadth' seem to be favored equally in human context. 'Animal' measurement would be 'length' from head to tail, and 'height' from shoulder to foot, with 'breadth' being an important additional measure, depending on the animal, fish or bird. Compare here the term our authors use, 'adjunctions' [al-idlāfāt].

¹² Quantity in its essence [al-kamm bi-al-dhāt]; ... in itself [al-kamm bi-nafsihi];

4. Or, ['quantity as an accident'] is linked together with ['quantity in its essence'], just as limited force and unlimited [force are linked together] according to the limitation and the nonlimitation of their effects, whether [these effects are] in 'number' or in 'time duration'.

Isfahani says:

L 167, T 76, MS 82b

2. *Quantity in its essence and as an accident*

a. 'Quantity in its essence' is that which is a quantity in itself.¹³

1. 'Quantity MS 83a continuous in its essence' constitutes [both]

a) 'time duration' and

b) 'quantitative measurements', namely, the line, the surface and the geometrical teaching body.

b. 'Quantity as an accident' constitutes

1. whatever inheres in a 'quantity in its essence', as does 'time duration'. Now, even though [time duration] is

a) 'quantity continuous in its essence', it is [also]

b) 'quantity continuous as an accident', because it subsists in the 'motion-change' that corresponds to distance, [a motion-change] that is a 'continuous quantity in its essence'. Time duration is [also]

c) 'quantity discontinuous as an accident', since it is divisible into hours.¹⁴

2. 'Quantity as an accident' is also whatever is a substrate for 'quantity [in its essence]', as [for example]

a) a 'body' that is a substrate for a 'quantitative measure', which in turn is a 'continuous quantity in its essence'; and as

b) a 'numbered entity' that is a substrate for 'number', which in turn is a 'discontinuous quantity in its essence'.

3. 'Quantity as an accident' is also whatever inheres in the substrate of a 'quantity in its essence', as one would say, "There is more whiteness on this [white and black spotted] piebald horse."

4. 'Quantity as an accident' is also whatever is linked together with anything made accidental to 'quantity in its essence'; that is,

¹³ MS gl: I.e., receptive of division without regard for anything else.

¹⁴ MS gl: And months, days and years.

the 'quantity as an accident' would be the principal source of anything made accidental to 'quantity in its essence' by either continuous L 168 or discontinuous quantity:¹⁵ as [for example], force described as limited or unlimited according to the limitation or non-limitation of its effects, whether in number or in time. For if the 'effects' that result from the forces should be limited or unlimited either in number or in time, then the 'forces' that are the source of those effects also would be described as limited or unlimited, either in number or in time.

Baydawi said:

L 168, T 76

3. *On the nonexistential nature of quantities*

a. The Mutakallimun held that a 'number' is composed of 'units of singularity' that are intellectual entities having no existence externally, as was said earlier. However, [say the Mutakallimun], quantitative measurements are [themselves] the corporeality, or the corporeal parts, because bodies are composed of indivisible atoms, and [the measurements] are not something added to [the bodies]. If it should be otherwise, [then the measurements] would be divided along with the body that is their substrate. Thus, a line would be divided 'perpendicularly', and a surface 'horizontally'.¹⁶ But this is contrary [to the argument].

An objection is raised that these [measurements on bodies] are not accidental qualities that permeate [bodies], so their divisibility is not implied. The reply [to this objection] is that if a surface, for example, should not be in any of the parts assumed to belong to a body, then it would not be inherent within it. But if it should be [in some one of them], then either

1. it would exist wholly in one part only, and thus [that part] and no other would have the measure; or

2. it would exist in every single [part], so then the 'one' as a whole, either would be subsisting in the many, or it would not [be

¹⁵ The MS omits the preceding explanatory clause.

¹⁶ I.e., 'width' ['ard], as applied to a line, would be a 'perpendicular cut' across the line; and 'depth' ['amq], as applied to a surface, would be a 'horizontal cut', as if by a line set to be moved 'downward' across the 'surface', or, across the 'standing log' when measuring for firewood pieces.

subsisting in the many], and thus [its] division would be implied. But this requires consideration.

b. The philosophers argued

1. that different measurements may succeed one another on a single body, while its own specific bodily nature would continue as it is, and

2. that lines and surfaces are attributes of a 'geometrical teaching body', that may be expanded at times and compacted at other times, so, [the body] would not be a [fixed] substance.

The reply to the [philosophers'] first point is that

1.-a. what is changeable is the shape or the positions of the parts of the body, and to the second [point] it is that

2.-a. the premises are disallowed.

Isfahani says:

L 168, T 76, MS 83a

3. *On the nonexistential nature of quantities*

Topic 3 is on the nonexistence of these quantities [externally], meaning 'number' and 'quantitative measures', which are 'line', 'surface', 'geometrical teaching body' and 'time duration'.

a. The Mutakallimun held that 'number', that is, 'discontinuous quantity', has no existence externally, since 'number' is a composite of the 'units of singularity' that are intellectual entities having no existence externally, as was said earlier, in the discussion on 'singularity and plurality'. And a composite of intellectual entities having no existence externally would be theoretical [only] and would not have existence externally.

However, [say the Mutakallimun], the 'quantitative measures', which are the 'geometrical teaching body', the 'surface' and the 'line', are not existents that are something added to the body¹⁷ because they are either the very [three-dimensional] body itself,¹⁸ or part¹⁹ L 169 of the body, based on the [theory] that the body is composed of indivisible atoms. In that case, MS 83b the parts joined one with another would be in three dimensions, namely, length,

¹⁷ MS gl: I.e., any natural body [al-jism al-ṭabīʿī].

¹⁸ MS gl: The geometrical teaching body [jism taʿlīmī].

¹⁹ Reading with T, the MS and MS Garrett 989Ha. L reads [ajzāʾ] with a typographical error preceding: "if" [law] instead of "or" [aw].

width, and depth, which constitute a [three-dimensional] 'body'. The parts joined one with another in two dimensions constitute a 'surface', and [the surface] is part of what was joined together in three dimensions. The parts joined one with another in one dimension constitute a 'line', and this is part of what was joined together in two dimensions. T 77

Quantitative measures are not something added to the body and inhering within it, because if these [quantitative] measures should be inhering within [the body], then they would be divided when the body that is their substrate would be divided. Thus, a line would be divided perpendicularly, and a surface [would be divided] horizontally, because the substrate of a surface would be the body that is divisible in depth, and the substrate being divisible in depth would require the inherent to be divisible in depth likewise. The surface is the substrate of a line, and would be divisible 'in width', so the line inhering within it would be divisible 'in width' [i.e., perpendicularly], because when the substrate is divisible 'in width' the inherent within it would be divisible likewise.²⁰

But this, [observes Isfahani], is contrary [to the assumed facts in the case], because, according to the views [of the Mutakallimun], a line would not be divisible in width, since it is length without width, and a surface would not be divisible in depth, because it has length and width, but not depth.

An objection has been raised²¹ [refusing to] grant that, if quantitative measures should be inherent within a body, then they would be divided when the body would be divided. That would be implied only if the measures should be [the kind of] accidental qualities that permeate [a body]. But that is not so, for 'line' and 'surface' are not accidental qualities that permeate. Thus there would be no implication from [the fact that] a surface inheres in a body that the surface would be divisible into three dimensions, or from [the fact that] a line inheres in a surface that the line would be divisible in width.

The answer [to the objection]²² is that if a surface, for example, should not be inherent in any of the parts the body is assumed to have, then it would not be inherent in the body. And if a surface

²⁰ See the note for this passage in Baydawi's text above.

²¹ I.e., presumably by the philosophers against the Mutakallimun: literally, "that we do not grant."

²² I. gl: This is a reply to the philosophers from the Mutakallimun.

should be inherent in any of the parts the body is assumed to have, then either

a. the surface in its totality would exist in each one of the parts the body is assumed to have, the implication of this being that one accident would be subsisting in many substrates, and the impossibility of that was noted earlier; or

b. the surface would exist, not in its totality, in every part assumed [to be in the body], but rather, a portion of the surface would exist in every part assumed [to be in the body], and this would imply that the surface would be divisible in width, because then a portion MS 84a of the surface would exist within the parts that had been included from the dimension of depth. One should understand that this L 170 reply is based upon [the theory held by the Mutakallimun] that a body would be composed of indivisible atoms.

In spite of this, an objection could be raised that the surface would be inherent in the parts joined one to another in two dimensions, length and width, and would not be inherent in the parts brought together in a third dimension. Thus, there would be no²³ implication that the surface would be divisible into a third dimension, and this would be due to the inherent necessity that there be no division of the substrate into a third dimension, and in turn, this would be due to the inherent necessity that, for the parts brought together in the two dimensions, there should be no division into a third dimension.

b. The philosophers have argued that quantitative measurements would be an addition to a [natural] body. In the case of a 'geometrical teaching body', that is, a quantitative standard having length, width and depth, [it would be so] because variation sometimes occurs to an individuated body while the reality of the individuated corporeal nature continues. [For example], a single piece of wax in itself will continue to exist although its measurements may change in accordance with the change of its shapes, whether cubical or spherical. Thus, the continuance of a corporeal nature along with change in measurements, meaning in a 'geometrical teaching body', proves that the 'geometrical teaching body' would constitute an 'accidental quality' subsisting in a body, not a substance. In the case of

²³ L lacks the preposition and the negative, [fa-lā], the space for them being vacant.

a surface and a line [it would be so] because they are accidental qualities of a body, [each] by way of [being a] finite limit, and a finite limit would not be [one] of the things that give subsistence to a body, because [the finite limit] would become concomitant to the body after [the body] had become a reality. Thus, the surface and the line would not be among the things that give subsistence to the body. What proves that the line would not be one of the things that give subsistence to a body is the fact that a body exists without a line. A genuine sphere is an existent thing and there is actually no [straight] line in it, so a [straight] line would not be a necessary certification for a body. If a line should not be a necessary certification for a body, then it would not be one of the causes that give the body subsistence, but rather, it would be an accidental quality subsisting in the body.

[Baydawi], quoting from the [argument of the] philosophers, said that

a. a surface and a line are attributes of a geometrical teaching body that expands at times, in that its measurements increase without the addition of any other parts to it, and that compacts at other times, in that its measurements decrease without the removal of any parts from it. Now,

b. a natural body continues in the real nature of its kind, while a 'geometrical teaching body' that varies by expanding or compacting does not continue in its [usual] state. Therefore, the 'geometrical teaching body' would not be a 'substance', but rather [it would be] an accidental quality subsisting in a natural body. Thus, the line and surface, being among the attributes [of a geometrical teaching body], MS 84b more appropriately would be accidental qualities.

Then [Baydawi] stated that

a.-a. the answer to the [philosophers'] first [point] is that what varies and changes is the shape or the positions of the parts of the body. If the wax, that was cubical, for example, should be made spherical L 171 then there would join together in it parts that had been separated, while if what was spherical should be made cubical, then the parts which were united would become separate. It is not the quantity [that would change]. But this²⁴ is not right, for a change of the shape would necessitate a change of the measurement,

²⁴ MS gl: I.e., "this answer", (Isfahani's correction here).

because the shape is the structure of that which one limiting definition,²⁵ or several definitions,²⁶ would comprise, from the standpoint of what is included. The structure of the inclusion would change only with a change of what is included, and a change of what is included without any change of the limiting definitions would be impossible, and a change of the limiting definitions without any change of the measurement would be impossible.

Regarding [Baydawi's] expression, "Or the positions of the parts of the body", that [statement] is invalid, for a body would not have in it parts such that their positions actually would change with [its] alteration.²⁷ Wax does not have in it parts that actually would be brought together through its becoming a sphere, but rather the wax has [only] one [size] extension that would continue,—so long as no separation would occur in it,—along with the exchanging of its measurements in circumstances of there being no separation. Indeed, what would continue during a period of no separation would be something different from what would cease during a period of no separation.²⁸

[And Baydawi said that]

b.—a. the answer to the second [point of the philosophers]²⁹ was through the denial T 78 of the premises, that is, we do not grant that lines and surfaces would be the attributes of a geometrical teaching body, but rather, they are among the things that give subsistence to any [natural]³⁰ body.

Now, even if it should be granted that lines and surfaces³¹ would be attributes of a geometrical teaching body, nevertheless we [i.e., Isfahani] would not grant that a geometrical teaching body would

²⁵ MS gl: In relation to the sphere.

²⁶ MS gl: In relation to the cube.

²⁷ It appears that Baydawi refers to a human or animal body having parts, while Isfahani refers to an inanimate body not differentiated into parts. Ed.

²⁸ Reading with the MS, as L and T use only a relative pronoun instead of the final noun.

²⁹ Glosses: 1. MS: On the part of the Mutakallimun.

2. L: In his statement, "The reply to the second point is by disallowing the premises", he meant what he had said secondarily, that would indicate the states of the three dimensions. [Sayyid Sharif al-Jurjani's gloss on Isfahani's commentary.]

3. L: This reply is from the philosophers' side regarding the Mutakallimun's prohibition, and is "We do not grant that the lines . . . [etc.]"

³⁰ The MS adds [tabf'i] here.

³¹ L and T reverse the sequence of these two nouns.

expand or compact, for [the change in] expansion or compaction, both of which would be real, is corollary to [the argument that] primal matter is an established reality, and [an explanation of]³² the falsity of that [conclusion] will come later. And, even if we should grant that a geometrical teaching body would be something that expands or compacts, nevertheless we would not grant that, if a geometrical teaching body should be something that expands or compacts, then it would not be a 'substance'.

An objection could be raised that a 'surface' would be an attribute of a geometrical teaching body, because it would be accidental to a geometrical teaching body by virtue of the limitation in itself that qualifies a geometrical teaching body, and also [a 'surface' would be accidental] to any natural body by virtue of its being an accident; and thus, [a surface] would be MS85a one of [the geometrical teaching body's] attributes. Further, a 'line' would be accidental to a 'surface' by virtue of the surface's own limitation, so it also would be an attribute [i.e., of the geometrical teaching body].

Regarding primal matter, an argument against its existence will be set forth later. And as for [our doctrine] that the 'geometrical teaching body', that expands at times and compacts at other times, would not be a 'substance', the reason for that is because its first measurement would not continue when it expands and likewise when it compacts, while simultaneously the natural body would be continuing in its own real nature.³³ So a geometrical teaching body that would pass away while any natural body would continue, would be an accidental quality that would be an addition to any natural body.

One should understand that expansion and compaction would be two genuine accidents of any natural body, and for a geometrical teaching body to be characterized by them both would be [also] as an accidental quality, but the fact that the expansion and the compaction occurs in the natural body³⁴ indicates L 172 that a geometrical

³² The MS adds [bayān] here. This notification is repeated below. A full discussion of primal matter as to its necessary function, both for and against, comes in Book 1, Sect. 3, Chapt. 1 "Bodies", (L 241 ff.). The atomic 'body' theory of the Mutakallimūn (presumably including Baydawī and Isfahānī) has no place for 'primal matter'; but the theory held by the philosophers does have a place for it.

³³ I.e., The ['geometrical] teaching body' would be constructed with arbitrary measurements and sharp corners.

³⁴ Reading with L, T and MS Garrett 989Ha. The MS reads [al-jism al-ta'limī].

teaching body would be an addition to the natural body, as we have mentioned.

Baydawi said:

L 172, T 78

4. *Time duration*

The external existence of time duration: arguments against

There are people who deny the [external] existence [of time duration]. [They argue so] because

a. if [time duration] should be something permanent in its essence, then the present and the past would come together, and so, that which would take place today would be that which had taken place on the day of the Great Flood; but

b. if it should not [be something permanent in its essence], then the implication would be that some of its parts would antecede other parts in the kind of precedence that could not be realized except in a time duration, and so the argument would be an infinite series.

a.b.-a. The reply [to this argument] is that the past has preceded by reason of its own essence, not by reason of any other time duration.

Isfahani says:

L 172, T 78, MS 85a

4. *Time duration*

The external existence of time duration: arguments against

Some scholars deny the existence of time duration.³⁵ They argued that if time duration should be something existent, then

a. it would be either permanent in its essence, or

b. not permanent in its essence.

(a.) If [time duration] should be permanent in its essence, then the present and the past would come together, and thus the day of the Great Flood would be simultaneous with today, for a phenom-

³⁵ MS gl: They are Mutakallimun who asserted that time duration was a mental entity having no external existence.

enon of today would be a phenomenon of the day of the Great Flood; and the corruption of such reasoning cannot be hidden.

(b.) However, if time duration should not be permanent in its essence, then the implication would be that some of its parts would antecede other parts in the kind of precedence that could be realized only in a time duration. This is because then the intellect would require that a part [of the time duration] should have been existent, but is not continuing in the present moment, and that a part of it should exist now and in the past, the present moment being a time duration. Thus, the implication from all this would be that a time duration would occur within a time duration, and so the argument would be an infinite series.

a.b.-a. The reply [to this argument] is that the past has preceded by reason of its own essence, not by reason of some other time duration. If time duration should not be permanent in its essence, then part of it would not continue along when another part would occur, and so there would be no implication that one time duration would have within it another time duration. This is because both what goes before and what comes after would be parts of a time duration by reason of its essence. Thus, part of it would precede another part, not by reason of some time duration other than these two, but rather, by reason of the essence of these two, and from this reasoning there is no implication that the argument would be an infinite series.

Baydawi said:

L 172, T 78

The external existence of time duration: arguments for

[Philosophers] who affirm [the external existence of time duration] hold firmly to the following two reasons.

a. If we should posit one movement for a set distance at a certain speed, and a second similar [movement], and if the two should start together, then the two would cover the distance together. Now, if the second movement should be delayed at the start but stop at the same time, then it would have covered less distance [than the first].

Likewise, if [the second movement] should accord with [the first] both in starting and stopping but should be slower, then,

1. between the starting and stopping of the first [movement], the second would have the possibility of covering a certain distance

at a certain speed, but less than the first [case] by a certain decrease in speed; and,

2. between the starting and the stopping of the second movement, [the first movement] would have less possibility than [in the first case, to cover a certain distance] by [its own same] certain speed, this [second case] being only a portion of the possibility [that it had had] at first.

Therefore, [time duration] would be receptive to both increase and decrease; but there is nothing like this in 'nonexistence'.

b. Likewise, a father's antecedence to his son would be inherently necessary. L 173 But that antecedence would not be

1. constituted either by the existence of the father or by the nonexistence of the son, because these two factors are both intelligible simultaneously while disregarding [the antecedence]. Nor would it be

2. a nonexistential entity, because it would be the contrary of nonantecedence, thus it would be both additional and existential.

The reply [to this argument] is

a.-a. that these possibilities are intellectual entities that have no external existence, and

b.-a. the same is true of the antecedence.

Isfahani says:

L 173, T 78, MS 85a

The external existence of time duration: arguments for

[Philosophers] who affirm [the external existence of] time duration hold firmly MS 85b to the established certainty of time duration for two reasons.

a. If we should posit one movement for a set distance at a certain set speed, and if we should posit a second similar movement like the first, that is, with the same speed for the same distance, and if the two movements should start together and stop together, then the two movements would cover the space together.

Now, if the second [movement] should be delayed after the first in starting but should accord with it in stopping, then the second [movement] by inherent necessity would have covered less distance than what the first would have covered. Likewise, if the second movement should accord with the first both in starting and stopping,—that is, if the two of them should start and stop together,—and if

the second movement should be slower than the first movement, then the second movement would have covered less distance than the first would have covered.

If the latter should be the case, then between the starting and stopping of the first quick movement there would be the possibility [for the second movement] of covering a set distance at a set speed, but the possibility of covering the distance would be less than [in the case of] the first distance by a certain decrease in speed. And between the starting and stopping of the second quick movement, T 79 the possibility [for the first movement of covering a distance] would be less than [in] that first possibility at that same set speed, this [latter] possibility [for covering distance] being only a portion of the first possibility.

If that should be so, then this possibility would be receptive to both increase and decrease; but there is nothing in nonexistence that is receptive to increase and decrease. Therefore, this possibility would not be something nonexistent; and so, this possibility would be an existent and measurable entity.

This existent and measurable possibility would be something other than distance. Indeed, the slow [second] movement that is in accord with the first quick movement both in beginning [its movement] and in leaving off, that is, in starting and stopping, [these two movements] have a commonality in this possibility that is something inherently necessary because of their agreement in the starting and stopping. But they are dissimilar in the distance [covered] by the inherent necessity of the fact that the distance [covered by] the slow [movement] is less, and that in which there is mutual accord is something other than that in which there is difference. Therefore, time duration is an existent entity that is something other than distance.

b. The second of the reasons that prove the [external] existence of time duration L 174 is that the fact that a father would be antecedent to [his] son is an intelligible [fact] by inherent necessity. MS 86a That antecedence is due neither to the existence of the father nor the nonexistence of the son, since it is possible to conceive of both the existence of the father and the nonexistence of the son simultaneously without paying any attention to the antecedence. Thus, it is determined that that antecedence would be an addition to the [fact of the] existence of the father and the nonexistence of the son. And that antecedence would not be a nonexistential entity, because it is the contrary of a nonantecedence that would be pure

nonexistence; indeed, nonantecedence is validly affirmable of nonexistence. So then, that antecedence would be an additional fact established as a certainty, since if one of two contraries should be nonexistential, then the other would be existential.

a.-a. An answer to the first reason would be that these possibilities are intellectual entities that have no external existence, and that intellectual entities are receptive to being equal, and to having an increase or decrease, even though they are not external existents.

b.-a. An answer to the second reason also, is that antecedence is one of the intellectual entities that have no external existence, and so there would be no implication that time duration would have external existence.

Isfahani continues: additional arguments for the external existence of time duration

What would indicate the external existence of time duration is that a [given] temporal phenomenon, in [a retrospective] view of the fact that it had had nothing preceding it, would not have been [a factor] in that [which had preceded].

a. This would be unlike the precedence of a one over a two, a precedence that existentially causes what is before and what is after to exist simultaneously together. Rather, it would be the precedence of an antecedent, and that antecedent would not be certifiably [existent] together with what would be subsequent, but rather, it would terminate when the subsequent entity would be renewed.

b. Nor would that antecedent be nonexistence itself, for just as nonexistence admissibly may be antecedent, it admissibly may be subsequent.

c. Moreover, [the position of] antecedence could not possibly be a subsequent [entity].

d. Nor would that antecedence be the essence of the active agent. Indeed, the essence of an active agent might be an antecedent,³⁶ or it might be concurrent with it,³⁷ or it might be subsequent.³⁸

³⁶ As a father.

³⁷ MS gl: I.e., with the temporal phenomenon [ma'a al-hādith].

N.B.: In the MS the sequence of time stages and examples differ from that in L, T and MS Garrett 989Ha: MS = past, future, present.

³⁸ MS gl: As a son.

Thus, that antecedence³⁹ would be some other thing in which renewal and expiration would not cease, for it would be something not permanent in its essence while yet continuous in its essence.

Now, it would be admissible⁴⁰ to posit a moving entity that would proceed a certain distance, while the occurrence of that temporal phenomenon [i.e., mentioned at the beginning of this argument] would be simultaneous with the stopping of the motion, and thus the beginning of its motion would be before the [occurrence of the] temporal phenomenon. Between the beginning of the motion and the [concluding] occurrence of this temporal phenomenon there would be a number of 'befores' and 'afters', [each one] being renewed and expiring corresponding to portions of the distance and the motion.

Thus, it has become apparent that these antecedences are as continuous as the continuity of distance and motion. So, it has been established that every temporal phenomenon is preceded by some existent entity that is not permanent in its essence, MS 86b while being as continuous as the continuity of measurements. This is 'time duration', for the existence of both 'antecedence' and 'subsequence', which do not meet together simultaneously [within existence], indicates the existence of 'time duration'. L 175

'Time duration' is that to which 'antecedence' and 'subsequence' adhere because of its own essence, but these two do not exist simultaneously. That is so because a given thing-(a) may exist before another thing-(b) with an antecedence that does not exist simultaneously with what is subsequent, but [in this case the reason is] not because of the essence of thing-(a), but because its [existence] takes place within a time duration that is before the time duration of that other thing-(b). So antecedence and subsequence belong to the two things [(a) and (b)] because of the time duration [in which they occur].

As for whether this is because of time duration, there is no other reason; but rather, its own essence,⁴¹ elapsing and being renewed, is

³⁹ MS gl: I.e., the antecedence, in the sense of a genuine precursor entity [qabl] characterized in its essence by precedence, is something other and different from the nonexistent temporal phenomenon itself, and the essence of its active agent. [From the *Hashiyat Tajrid*, which is presumably, Ibn al-Mutahhar al-Hilli's comments on Nasir al-Din Tusi's *Tajrid*].

⁴⁰ MS gl: This is an explanation of the factual nature [li-kawn] of that other thing, not permanent of essence while continuous within the limit of its essence. [From the *Hashiyat Tajrid*, as in the preceding note.]

⁴¹ The MS reads [bal bi-dhātihī]; while L, T and MS Garrett 989Ha read [bal dhātuhu].

appropriate for the adherence to it of these two causal factors,⁴² not for anything else. So, the established certainty of these two does indicate the [external] existence of time duration.

Now, antecedence and subsequence are adjunctive relations⁴³ that have no [external] existence except as an intellectual consideration, because the two parts of time duration, of which the antecedence and subsequence are accidental qualities, do not exist simultaneously among the individual quiddities, so how would an adjunctive relation exist that is a qualifying accident for the two of them?⁴⁴ But what constitutes these two factors an established certainty in the intellect is a certain 'entity'⁴⁵ that indicates the existence of what in its essence would be the substrate for them both, I mean, 'time duration', together with that 'entity'. So for that reason, by making antecedence an accident that qualifies the nonexistence,⁴⁶ one infers the existence of the time duration along with it.

a. An objection has been raised that 'antecedence' is not an external existent, 'subsequence' likewise, for they are intellectually adjunctive relations, so they do not require their substrate to be existent externally, but only in the mind.

a.-a. The answer [to this objection] is that what constitutes these two factors an established certainty in the intellect is a certain 'entity' [i.e., the '[expected but as yet] nonexistent temporal phenomenon'] that indicates the existence of what in its essence would be the substrate of them both, namely, 'time duration', together with that 'entity'.

b. Another objection has been raised that if the '[expected but as yet] nonexistence of the temporal phenomenon' should be characterized by the attribute 'antecedence', then the implication would be that nonexistence would be characterized by the attribute 'established certainty', which would be impossible.

⁴² Two causal factors [ma'nayayn].

⁴³ L omits this word. The MS makes it a phrase [wa-humā idāfiyatān].

⁴⁴ Reading with T, the MS and MS Garrett 989Ha. L inserts "and" between 'adjunctive relation' and 'qualifying accident'.

⁴⁵ MS gl: What is meant by 'entity' is the '[expected but as yet] nonexistent temporal phenomenon'.

It may be surmised that the anticipation in waiting for an expected 'temporal phenomenon' is tangibly perceived as the 'duration of time'.

⁴⁶ MS gl: I.e., the [as yet] nonexistence of the temporal phenomenon.

b.-a. The answer [to this objection] is that the 'nonexistence of the temporal phenomenon' would not be a pure negation, because it would be a nonexistence modified by something.⁴⁷ Rather, it would be an intelligible factor, and antecedence would also be intelligible. And there is nothing impossible in making theoretical antecedence an accidental quality of the 'nonexistent temporal phenomenon' that is a theoretical entity having an established certainty in the intellect.

c. Another objection has been raised that some parts of time duration are before other parts, in accord with this antecedence that has been mentioned in the [case of] the '[expected but as yet] nonexistence of the temporal phenomenon'. Thus, if this antecedence should require a time duration to accompany what goes before in this antecedence, then the implication would be that a 'time duration' would have another 'time duration'.

c.-a. The answer [to this objection] is that making this antecedence an accidental quality of the parts of the time duration MS 87a would be in accordance with its own essence, and not on account of some other time duration. This is because T 80 time duration expires of itself, and so, in making the antecedence an accidental quality of some of its parts, it has no need to make it an accidental quality of anything else, in contrast to something that would not be time duration.

d. Another objection has been raised that it would not be admissible to make precedence an accidental quality of some of the parts of time, for, on the assumption that the parts would be equal in quiddity, L 176 it would be impossible to particularize some of them with 'antecedence' and others with 'subsequence'. Further, on the assumption that equality in quiddity would be lacking, the separation of each part from the other would be by means of its quiddity.⁴⁸ So the parts of a time duration would be separated from one another, and thus time duration would not be a single continuity, but rather, it would be a composite of [separate] moments.

d.-a. The answer [to this objection] is that the quiddity of time duration is a continuity of expiration and renewal, and that that continuity is not separable into parts except within the [human]

⁴⁷ MS gl: That is, [modified by] the temporal phenomenon; as one says, "The absence of Zayd."

⁴⁸ MS gl: I.e., by means of its own essence.

power of 'estimation'. Thus time duration does not have parts in actuality, nor does it have any 'foreend' or 'afterend' prior to its being separated into parts [in the 'estimation'].

Thus, if [time duration] should be posited as having parts, then a 'foreend' and an 'afterend' [i.e., of the time duration] would be made accidental qualities of [the parts] because of [the parts'] own essence. And it would not be because of some conception that they would be made accidental qualities of something other than the parts, with the result that the parts,—[really] on account of the 'foreend' and 'afterend' that qualify them, but [thought to be] in accordance with the conception that they are qualifications of something else than the parts,—would become things that are at the 'foreend' and 'afterend' [of time duration]. Rather, the conception of expiration and renewal, which is the real nature of time duration, requires that a conception of 'foreend' and 'afterend' should belong to the parts assumed [to exist in time duration] because of the lack of permanence, not on account of something else. This is the meaning of joining a 'foreend' and an 'afterend' as essences to [a time duration].

Regarding whatever factor has a real nature other than the 'lack of permanence', but with which the 'lack of permanence'⁴⁹ is closely associated, such as 'motion-change' and other factors, [that factor] would come to be a 'foreend' or an 'afterend' only through a conception that the [latter] two would be made accidental qualities of the 'lack of permanence' [i.e., time duration]. This constitutes the difference between what the 'foreend' and the 'afterend' would adhere to because of its own essence, and what would adhere to it on account of something else. So when we say, "Today" or, "Yesterday", we do not need to say, "Today comes after yesterday," because the notion of ['today'] itself includes this meaning of the 'afterend'. But when we say, "Nonexistence" and "Existence", we need to associate closely the sense of 'foreend' to one of the two [terms] so that it would become the 'foreend'.

Objection is raised that the doctrine of time duration being an 'accompaniment' of motion-change would require that one time duration should take place within another time duration, because the meaning of 'accompaniment' is that MS 87b the two things would be within one time duration.

⁴⁹ MS gl: This being 'time duration'.

The answer [to this objection] is that a. the 'accompaniment' of what is within a time duration for the time duration, would be different from b. the 'accompaniment' of two things that happen to occur in one time duration. This is because the former case a.) requires that there be a single relationship between something other than a time duration with something that is a time duration, [this relationship] being the specific 'time when' of that thing, in that the time duration would be an 'envelope' for that thing, and that thing would be 'enveloped' by it, and the latter case b.) requires that there be two relationships to two things having a commonality in that they are both related to an entity single in number, namely, a time duration that would be an envelope for them both, and these two being enveloped by it. For this reason, in the former case there would be no need for a time duration other than the one characterized by the 'accompaniment', while in the second case there would be a need L 177 for it.

Objection could be raised that if one means by the fact that a temporal phenomenon would be preceded by a time duration that it would be preceded by a time duration of some estimate assumed to have taken place, then that would be granted.⁵⁰ But if you mean by it that it would be preceded by a time duration that would be real and externally existent, then that would be disallowed, and what you have set forth as an explanation of it does not yield that meaning.

Baydawi said:

L 177, T 80

Theories on the nature of time duration

Scholars have differed [regarding the nature of 'time duration', and various theories have been held, as follows]:

a. [Time duration] is an immaterial substance that is not receptive to nonexistence; if it should be otherwise, then its nonexistence after its existence would be a subsequence that could not be realized except in a time duration, and this would imply that its existence would be during the state of its nonexistence, which would be impossible. The refutation of this [theory] is that impossibility is implied only from an assumption of its nonexistence after its existence, not from its nonexistence absolutely.

⁵⁰ MS gl: But the [external] existence of time duration may not be inferred from it.

b. [Time duration] is the greatest celestial sphere, because it completely encompasses all bodies.⁵¹ The error of this [theory] is obvious.

c. [Time duration's] motion-change is because [time duration] is not permanent in its essence. This [theory] is disallowed because motion-change would be either swift or slow, but time duration is not so.

d. [Time duration] is the quantitative measure of [the motion-change of the greatest sphere]. This is the doctrine of Aristotle and his school. [These philosophers] argue that proof demonstration indicates that⁵²

1. [time duration] is receptive to equality and to difference,⁵³ and everything of that sort would be a quantity, therefore, time duration is a quantity.

2. But, [time duration] would not be discontinuous, otherwise, it would be divisible into atoms; thus, it is continuous. But [time duration] is not permanent in its essence because its parts are not joined together.

3. [Time duration] has material substance; but it would not constitute a distance, nor would it be a self-moving agency, nor would it be any part of [the self-moving agency's] permanent structures.

4. Thus, [time duration] is a nonpermanent structure, namely, 'motion-change' [or, 'movement'].

5. This motion-change is circular in nature, because what is straight could be discontinued, but time duration would not be discontinued.

6. [Time duration] is the swiftest of [all] movements because other movements are measured by it, and it is the daily motion-change [of the revolving heavens].

One must understand

a) that this argument turns on the point that the receptivity to equality requires the [accidental quality of] quantity, and that would be established only if it should be established that [time duration's] receptivity to [equality] would be of [time duration's] own essence. [One should also understand]

⁵¹ H.A. Wolfson, in *The Philosophy of Spinoza* I:332, calls this "the all-encircling celestial sphere."

⁵² Murad Wahbah in his *al-Mufjam al-falsafi* (= *Vocabulaire philosophique*), under the rubric [al-zamān], quotes some paragraphs from Ibn Sina's *Kitab al-Najat* [as "page 80", and "pages 117–118"] that parallel or are otherwise closely related to these statements of Baydawi.

b) that it would be impossible for an atom to exist of its own essence; and

c) that for [time duration] to be a quantity, as if it were continuous but not permanent, would require it to have a substrate, either because it would be an accidental quality [of the substrate] or because it would be a temporal phenomenon, which would have need for matter.

Isfahani says:

L 177, T 80, MS 87b

Theories on the nature of time duration

Scholars who affirm the [external] existence of time duration have differed regarding its quiddity, [and various theories have been proposed, as follows]:

a. [Time duration] is an immaterial substance, that is, it is neither a body nor is it corporeal in nature. It is not receptive to non-existence, because if time duration should be receptive to nonexistence, then its nonexistence would be subsequent to its existence in the kind of subsequence that could be realized only together with a time duration, because its 'subsequence' would be that of a 'subsequent' that could not join with an 'antecedent', and 'subsequence' in this sense would be inconceivable except with a time duration. This would imply that the existence of the time duration would be during the state of its nonexistence, and that would be impossible.

This [reasoning] is refuted⁵⁴ by the fact that L 178 the impossibility would be implied only by assuming [the time duration's] non-existence after its existence, not from the standpoint of assuming its nonexistence absolutely, its nonexistence after its existence being more particular than its nonexistence absolutely. And if the impossibility should be a concomitant of what is more particular, then there would be no implication that it would be a concomitant of what is more general, and so the impossibility would not be implied by [the time duration's] absolute nonexistence. And in that case it would be admissible for it to be T 81 receptive to the nonexistence of its own essence.

⁵³ The terms in L appear to be garbled and misspelled: [musāwāmatah wa-mutafāwatah]. T and MS Garrett 283B and MS Garrett 989Hb agree in the spelling used here: [musāwāh wa-mufāwatah].

⁵⁴ MS gl: On the part of the Mutakallimun.

b. [Another theory is that] time duration is the greatest celestial sphere, because the greatest celestial sphere is one that encompasses all bodies, and time duration also encompasses all bodies. The error of this syllogism is obvious, for it is a syllogism in the Second Figure, of two affirmative premises⁵⁵ and this would be invalid.

c. [Another theory is that] time duration is the motion of the largest sphere, as time duration is not permanent in its essence, and the motion of the greatest sphere is also not permanent in its essence. MS 88a This [reasoning] is disallowed, because motion-change would be either swift or slow⁵⁶ while time duration is not such, that is, time duration is not describable as swift or slow. Moreover, the syllogism given is [again] a syllogism in the Second Figure of two affirmative premises.

d. [Another theory is that] time duration is a quantitative measure of the motion-change of the greatest celestial sphere, this being the doctrine of Aristotle and his school. [The philosophers of the school of Aristotle] argued that proof demonstration indicates that

1. time duration would be receptive to both equality and difference, and everything receptive to both equality and difference would be a quantity; so time duration is a quantity. But time duration is not a discontinuous quantity, because if time duration should be a discontinuous quantity, then it would be divisible into atoms, because a discontinuous quantity would be 'number', and number would be divisible into units of singularity that are indivisible. But time duration is divisible into what is divisible, since time duration corresponds with motion-change that [in turn] corresponds with distance, that is receptive to division without limit. Thus, time duration also would be receptive to division without limit, so it would be divisible into what is receptive to division.

2. Therefore, time duration would be a continuous quantity, but it would not be permanent in its essence, because its parts do not join together in existence. Otherwise, a thing that would be existent today would be existent [also] in the day of the Great Flood, which would be impossible.

⁵⁵ L 178 gl: His saying that it is a syllogism of the Second Figure is because the encompassment in the two locations [i.e., the sphere and time] does not have the same meaning. [From al-Jurjani's glosses on Isfahani's Commentary.]

See the discussion of the Second Figure in Chapter 3 of the Introduction.

⁵⁶ L here reads, 'slow or swift', while in the next line it reads, 'swift or slow'.

3. And if its parts exist in the manner of expiration and renewal then it would have material substance, for two reasons:

a) Everything of that sort would be an accidental quality, and an accident must have matter.⁵⁷

b) Everything that exists in the manner of expiration and renewal would have within it both the temporal origination of an entity and the expiration of an entity, and every temporal phenomenon would have matter.⁵⁸

c) But [time duration's] material substance would not constitute 'distance'. This is because the two factors that differ in [regard to] time duration may sometimes be in accord in [regard to] distance; and vice versa, that is, the two factors that accord in [regard to] time duration may sometimes differ L 179 in [regard to] distance. So if time duration were a quantitative measure of distance, then it would correspond to it.

d) Nor would the material substance of time duration be a 'self-moving agency', because the two things that differ in the time duration sometimes may be in accord in the measure, and vice versa.

e) Nor would the material substance of time duration be any other part of the permanent structures of a self-moving agency, for the two things that are in accord in time duration sometimes may differ in the measure of a permanent structure, and vice versa.

4. And because the measure of a permanent structure must be permanent, time duration is the measure of a nonpermanent self-moving agency, which is 'motion-change'; therefore, time duration is the quantitative measure of motion-change.

5. And that motion-change, the MS 88b measure of which would be time duration, is circular. This is because motion-change that is straight would be discontinued, since straight motion-change would be either toward the center [of the universe] or away from the center, and the former would be discontinued at the center [i.e., of the universe], and the latter at the [outer] circumference [of the universe]. But the time duration would not⁵⁹ be discontinuous. This is because if it should be discontinuous, then its nonexistence after

⁵⁷ MS glosses: 1. [i.e., as] a substrate. 2. Because it does not subsist in itself.

⁵⁸ MS gl: Since every temporal phenomenon would be preceded by matter.

See Book 1, Section 1, Chapter 4, Topic 5, for the argument supporting this theory.

⁵⁹ L has omitted the negative [lā].

its existence would be the [kind of] subsequence that would not [ever] join a subsequent with an antecedent. But that entity which by nature [and function] is time-like, after the nonexistence of a [given] time duration, would become time duration.⁶⁰ Thus, its non-existence after its existence would be impossible, so it would not be discontinuous.

6. So, time duration is the quantitative measure of a circular motion-change. This motion-change is the swiftest of all movements, and by it the time duration of all other movements is measured, because of this [particular] motion-change being the swiftest of movements. The motion-change that is the swiftest of movements is the daily motion-change, that is, the motion-change of the greatest celestial sphere. Therefore, time duration is the quantitative measure of the motion-change of the greatest celestial sphere.

One must understand⁶¹ that the point on which this argument [from the school of Aristotle] turns is:

a) The fact that [time duration's] receptivity to equality requires it to be a quantity, and that, that is, the requirement—deriving from the receptivity to equality—of [being a] quantity, would be an established certainty only if it should be established that time duration's receptivity to equality would be because of its own essence. But if its receptivity to equality should not be because of its own essence, then necessarily it would not be a quantity.

b) Also, a single atom could not possibly exist, in order that the inference may be that the time duration would be a continuous quantity, and not discontinuous.

c) Moreover, the fact that the time duration is a continuous quantity, but not one permanent in essence, necessitates that it have a substrate, either because of its being an accidental quality, or because of its being a temporal phenomenon, and [the substrate] has need for a material substance.

d) And furthermore, [the argument rests] upon the fact that the time duration will not be discontinuous, accordingly as reference has been made to⁶² these premises in the course of the argument.

⁶⁰ [Wa-mā hādhā sha'nuhu yakūn zamānīyan fa-ba'da 'adam al-zamān zamān].

⁶¹ MS gl: I.e., from the standpoint of the Mutakallimun.

⁶² Reading with the MS and MS Garrett 989Ha: [kamā ushūra ila']. L and T: [kamā ashār ila'].

Baydawi said:

L 179, T 81

5. *Place and void*

A place [may be defined] as an existent entity, because the intellect's intuition bears witness that whatever moves will make a transition from one 'place' to another, but a transition from nonexistence to nonexistence is impossible.

Moreover, [a place] is external to an entity resident within the place, because any part of [this resident] would transit with the transition of [its totality], in contrast to the place [itself].

Theories of place

a. According to Aristotle [a place] constitutes the inner surface of a container, that [in turn] contacts the outer [surface] of what is contained.⁶³

b. According to the mentor [of Aristotle, namely, Plato, a place] is an immaterial existent space dimension L 180 in which a body is operative.⁶⁴

c. According to the Mutakallimun,⁶⁵ [a place, i.e., as an immaterial space dimension] may be posited as a fact.

A proof demonstration supporting the first [theory here (a.)] is that a 'place' would be either

⁶³ "Aristotle . . . [treated] the concept of space in terms of 'place', which he defined as the adjacent boundary of the containing body" . . . "Aristotle thought of the cosmos as a system of concentric spheres, and the outermost sphere of the cosmos would, on his view, define all other places in relation to itself." *Encyclopedia of Philosophy*, s.v. "space."

⁶⁴ A description of Plato's notion of 'place' is that 'space' or 'place' is like a 'receptacle' that is full of chaotic activity of motion, over which the 'craftsman' struggles and works to form an orderly universe. Within the 'receptacle' also are all the souls and also the 'world-soul', and within each of these there is a disorderly element that each must deal with in its striving. Paraphrased from A.H. Armstrong: *An Introduction to Ancient Philosophy*. Totowa, N.J.: Rowman & Allanheld, 1983, (A Helix Book), pp. 50-51.

⁶⁵ The study by Alnoor Dhanani, in his *The Physical Theory of Kalam* [Leiden, 1994, especially in Chapter 3, "Atoms, space, and void", pp. 66 f.], of fourth and fifth centuries A.H./tenth and eleventh centuries A.D. kalam cosmology reveals that during that period the term [makān] was used primarily to denote unoccupied 'space', or a certain portion of it.

1. a 'surface', or
 2. a 'void'; but the second [alternative] is invalid, for the following reasons:⁶⁶

a) [The first main reason a 'place' would not be a 'void', is because a void]

1) is neither nonexistential, otherwise it would not be receptive to increase and decrease,

2) nor is it existential, [the latter being true] for the following reasons:

aa) [The first subordinate reason the void is not existential, is because] if a body should occur within an immaterial space dimension, then it would imply the pervasion and unification of the two spaces,⁶⁷ and to admit that much would lead to admitting that the universe could pervade the spatial domain of a mustard seed, which would be impossible.

bb) [The second subordinate reason the void is not existential, is because] [the body's] immateriality would not be due to itself nor due to its concomitants, otherwise, every space dimension would be like that; nor [would it be] due to its accidental qualities, otherwise, whatever would need a substrate would have no need for [a body] because of some accidental quality, which would be impossible.

cc) [The third subordinate reason the void is not existential, is because] if a space dimension

11) should be something that moves, then it would have a spatial domain, and there would be pervasive space dimensions T 82 without limit.⁶⁸ However, if [the condition that a space dimension would move] should be granted, then, from the standpoint that all [the space dimensions] would be receptive to motion, they would have a 'place', and that would not be a space dimension. But if [a space dimension]

22) should not be something that moves, and if what prevents [it] from [motion] should be

⁶⁶ See again Alnoor Dhanani, *op. cit.*, pp. 71–89, where debates of the Mu'tazilah schools of Baghdad [seven arguments against] and of Basrah [eight arguments for] are set out on the question of 'the existence of a void'.

⁶⁷ L gl: *Le.*, the dimension of the 'body' and the dimension that would be the 'place'.

⁶⁸ T adds here, "and that would be impossible"; other sources omit it.

aaa) its own essence or a concomitant, then bodies would not move because of the space dimensions within them; but if [what prevents it from motion] should be

bbb) one of its own accidents, then its own nature, in itself, would be receptive to motion, and the inherent necessity would return.⁶⁹

b) The second [main reason a 'place' would not be a 'void'] is that, if [a 'place'] should be a 'void', and if the time duration to transit a parasang of void, for instance, should be one hour, while [to transit] a parasang of a [given] plenum should be ten hours, and [to transit] a second [given] plenum,—in which the degree of dense resistance [to passage] would be one tenth of the degree of dense resistance to passage in the first [plenum],—one hour, then the time duration [needed] for that which had some impediment [i.e., the second plenum] would be the same as the time duration [needed] for that lacking any impediment [i.e., the void]. But this would be a discrepancy.

c) The third [main reason a 'place' would not be a 'void'] is that, if [a 'place'] should be a 'void', equally whether it would constitute 'nonexistence' or an 'apparent space dimension',⁷⁰ then the occurrence of a body on one of its sides would not be more likely [than on any other side], so [a body] would neither come to rest within it nor would it be inclined to it.⁷¹

a)-a. The answer to the first main reason [that a place would not be a void] is that the increase and decrease would be included in the consideration of the hypothesis. Also, the lack of any

⁶⁹ L gl: I.e., If that which prevents [the space dimension] from motion should be something accidental to its own essence, then the natural [pattern] of that essence [tabī'at tilka al-dhāt], as such, would be receptive to motion, and so a space dimension would be something that moves. This is the first [logical] division [of the topic] itself, and the [inherent] necessity [i.e., of decision] mentioned in the first point returns, this being either an infinite series or the fact that a 'place' [al-makān] would be something other than a 'space dimension' [bu'd]. [From 'Ibri's Commentary on Baydawi's *Tawālīf*.]

⁷⁰ A.-M. Goichon, *Lexique de la Langue Philosophique d'Ibn Sina*, no. 306, [mutashābahah] (semblable) = seemingly, apparent.

⁷¹ L gl: I.e., If the occurrence of the body on one of its sides should not be more likely than on another [of its sides], then the body would not come to rest on any of its sides, because for it to be specified as a place to come to rest on one side, and not another side, would require that there be specification without an agent of specification, which would be impossible. [From 'Ibri's Commentary on Baydawi's *Tawālīf*.]

sensate perception of the two of them simultaneously, would not logically require their interpenetration and unification. Further, the essence of a space dimension in itself would not require either that it be self-sufficient [i.e., regarding a substrate] or that it have need [for one]. Nor would [a space dimension] be receptive to motion-change, as it is '[somewhat] immaterial', but that fact would not necessarily cause motion-change for it to be an impossibility, as it is [also 'somewhat'] material'.

b)-a. The answer to the second [main reason that a place would not be a void] is that a motion-change in the void would require a time duration because of its own essence. Otherwise, motion-change in the void would not be in a time duration. But how could that be [possible], when every transition is over a distance,—one both divisible and capable of being broken up into parts,—that would be divided into parts, some of which would be antecedent while others of them would be subsequent, the time duration being an hour, according to this hypothesis. Thus, the time duration for the smoothly traversed plenum would be an hour, plus one tenth of the nine hours [extra needed to traverse the densely resisting plenum].

c)-a. The answer to the third [main reason that a place would not be a void] is that the void would be an apparent space dimension, equal to the measure of the universe, while the occurrence of certain L 181 bodies in certain areas [i.e., of the universe], would be due to the suitable or unsuitable conditions [existing] between them, and the [consequent] requirements of nearness and distance.

An objection has been raised to the effect that holding that a surface [is a place] would be false; otherwise, bodies would become an infinite series, because every body would have a spatial domain without doubt. For example, when water flows over a stone that is at rest, then its rest is not called 'a continuance of its relationship with things at rest', because the continuance of the relationship would be caused by its [being at] rest, and [this fact] implicitly governs any increase or decrease of its place as well as its remaining just as it is, just as when wax that is spherical would be made cubical and vice versa.

Now, a proof of the possible existence of the 'void' is that if a smooth surface should be lifted up from another [surface] like it all at once, then the intermediate space would be a void at the first

moment of the lifting; while, if there should not be a void, then a mutual repulsion of the whole universe would be implied by the motion of a gnat [i.e., in not being drawn into the intermediate space].

But one may not hold that what is behind [the gnat] would expand and that what is before it would compact, because [the notion of] the cessation of one measure [of space] and the occurrence of another would be corollary to [the notion of] the existence of primal matter, and to [the notion of] the measure [of space] being an accidental quality, both of these [latter] notions being impossible.

Isfahani says:

L 181, T 82, MS 88b

5. *Place and void*

A place [may be defined] as an existent entity. And the intuition of the intellect bears witness that what moves in a direct [line of] motion will transit from one place to place, but a transition from nonexistence to nonexistence is impossible.

How would [a place] not be something existent externally, since it is the goal of whatever moves in a [line of] specific spatial motion-change, and [it is] referred to by a sensate indication? Everything that is a goal of whatever moves in a line of specific spatial motion-change and is referred to by a sensate indication is externally existent.

Now, a 'place' is not a portion of an entity resident within a place, nor is it inherent within [the place]. This is because a body resides in a place, and transits by movement away from the place or to it, and everything that is such, is not a portion of a body nor is it inherent within [a body]. A portion, belonging to a body residing in a place and inhering within [that body], would transit along with [the whole body's] transition. But a 'place' would not transit MS 89a along with the transition of the entity resident there. Thus, the 'place' is external to the entity resident [within the place].

Theories of place

a. According to Aristotle, [a 'place'] constitutes the inner surface of a body that is a container, that [in turn] contacts the outer surface of what is contained.

b. According to [Aristotle's] mentor, Plato, [a 'place'] is an existent space dimension abstracted from matter in which a body is operative.

c. According to the Mutakallimun, [a 'place'] is an abstracted space dimension that may be posited as fact.

A proof demonstration of the first [theory (a.)],⁷² is that a 'place' is either

1. a 'surface', or
2. a 'void', that is, an immaterial space dimension, either externally existent or assumed [to be so]; but this second [alternative], namely, that a place would be a void, is invalid for [the following] reasons:

a) The first [main reason that a 'place' would not be a 'void'] is that a void would be either

- 1) nonexistent, as the Mutakallimun say, or
- 2) it would be an existent, as in Plato's doctrine.

(1) The first [alternative] is invalid, because if the void in which a body is inherent, should be nonexistent L 182 then it would not be receptive to increase and decrease. But that conclusion is false. To explain the logical necessity used here, it is that what is nonexistent would not be receptive to increase or decrease. The falsity of the conclusion is because the space dimension of what is between the bodies that are not in contact differs in being more or less.

(2) The second [alternative], that is, that a void would be an [external] existent, is false for [a number of] reasons:

aa) The first [subordinate reason that the void would not be an external existent] is that if a body should occur within an immaterial existent space dimension, then the implication would be that there was an interpenetration and unification of two space dimensions, since in that case the immaterial space dimension would not be distinguishable from the space dimension of the body that was resident.⁷³ Indeed, a reference to one of them would be a reference to the other, and the distinction of one from the other in position would be removed.⁷⁴ Moreover, to admit the interpenetra-

⁷² A sign in the MS indicates the antecedent of 'first' is the theory of Aristotle.

⁷³ MS gl: It means the space dimension of the 'body' and the immaterial space dimension that is the 'place'.

⁷⁴ "... Position [al-waḍ'] in technical usage is the particularization of one thing

tion and unification of two space dimensions would lead to an admission of the interpenetration of the universe within the space occupied by a mustard seed,⁷⁵ which would be impossible by inherent intellectual necessity.

bb) The second [subordinate reason that the void would not be an external existent] is that

11) the immateriality of a space dimension would not be due to its own essence nor to its concomitants. This is because, if the immateriality of a space dimension should be due to its own essence or to its concomitants, then every space dimension would be immaterial; but this conclusion is false, because the space dimensions of bodies closely accompany matter. And that

22) the immateriality of a space dimension would not be due to its accidental qualities, because, if the immateriality of a space dimension should be due to its accidental qualities, then whatever would have need for a substrate on account of its own essence would not have need for it on account of some accidental quality. But this conclusion is impossible, for it T 83 would be impossible for something [that exists] on account of its own essence to pass away on account of some accidental quality. To explain the logical necessity here it is that, if the space dimension should be abstracted from matter on account of some accidental quality, then the space dimension itself would not be what would require the immateriality, and thus it would have need for a substrate.

cc) The third [subordinate reason that the void would not be an external existent] is that,

11) if a space dimension should be something that moves, then it would have a spatial domain, because motion-change constitutes a transition from one spatial domain to another, and if MS 89b a space dimension, that would be a place, should be something that moves then it would have a spatial domain. Thus, its spatial domain would be its space dimension, and a space dimension is one of the things that move. So for the spatial domain of the spatial

by means of [another] thing, [so that] when the first thing is mentioned or sensed [to be referred to] the second thing would be understood from it as being intended by the mention . . ." [From *Ta'rifat al-Jurjani*, G. Fluegel, ed., p. 243.]

⁷⁵ L gl: "In that it would be divisible into one piece after another, in the size of a mustard seed after another, and then all of [the pieces of the universe] would interpenetrate one of them [a space dimension the size of a mustard seed]—would be invalid by intuition." [From Jurjani's *Sharh Mawaqif al-Iji*.]

domain there would be [another 3rd] spatial domain, and that [other 3rd] spatial domain would have need for [yet] another [4th] spatial domain, the implication being that space dimensions would be there interpenetrating without limit, which would be impossible.

[And] if the admissibility of space dimensions interpenetrating without limit should be granted, then the implication would be that a place would not be a space dimension. This is because, in view of the fact that they would all be receptive to motion-change, [each of] the space dimensions interpenetrating without limit would have a place, because if they are all in motion, then they would have transited from place to place. And the place from which the space dimensions all had moved would no longer be a space dimension, because that place [then] would be external to all the [newly occupied] space dimensions, and what would be external to all the [newly occupied] space dimensions would not be a space dimension.⁷⁶

22) But if a space dimension should not be something that moves, and if what prevents the motion-change should be the essence of the space dimension or a concomitant of the essence of the space dimension, then bodies would not move. This is because of the space dimension within them that prevents motion on account of its own essence or on account of its concomitants. L 183 But if what prevents the motion-change of the space dimension should be something accidental to the essence of the space dimension, then the nature of space dimensions, in itself, would be receptive to motion-change. And then the inherent necessity previously mentioned would return, namely, that the space dimensions⁷⁷ would be interpenetrating without limit. In spite of this, the implication is that a 'place' would not be a 'space dimension'.

We [Isfahani] said that the inherent necessity previously mentioned would return only because, if space dimensions should be receptive to motion, and if the motion-change should demand a place from which to move, then a place that would be a space dimension would have another place, and so on.

⁷⁶ MS gl: But rather, it would be a surface; and this is the goal of the logic.

The MS places this note with the preceding instance of the clause, "would not be a space dimension", but the sense of the note fits better with this conclusion of a subsection of the argument.

⁷⁷ MS gl: Because [each] is receptive to the motion-change of its own essence, apart from its accidental qualities.

b) The second [main] reason that a 'place' would not be a 'void' is that if [a 'place'] should be a 'void', then the implication would be that the time duration of the movement where there were impediments [i.e., in the example given] would be equal to the time duration of the movement where impediments were lacking. But the conclusion is false and the premise is likewise. An explanation of the logical necessity [used here] is preceded by the statement of a [true] premise, namely, that whenever the distance through which a moving body will move would be less dense [with impediments]⁷⁸ then the motion in it would be swifter, and whenever the distance would be more dense [with impediments]⁷⁹ then the motion in it would be slower.

The cause of this [variation] is the capacity⁸⁰ of resisting [the moving body] that pushes and pierces [its way] through, or its incapacity⁸¹ to resist it. For what is sparse [of resistance] would be extremely passive before the pushing and piercing body, while what is dense would be the contrary. 'Sparseness' and 'density' are contradictory in that [with the latter] there would be an increase [of resistance] MS 90a and [with the former] there would be a decrease [of resistance]. Whenever the density increases then the resistance increases, and whenever the resistance increases then there is an increased reduction in speed. Thus, motion will differ both in speed and slowness, according to the difference in the resistance.

If you have understood that, then we may proceed to say that if [a 'place'] should be a 'void', and if a body should move within [the void] with a specific force, then inevitably either

1) it would traverse [the void] within a [given] time duration, or

2) it would not [traverse the void] within the time duration.⁸² The second [alternative] would be impossible, because it traverses a portion of the distance before it would traverse the whole.⁸³ So, the former [alternative] is determined.

⁷⁸ L and MS gl: As air, for example. [From al-Sayyid al-Sharif al-Jurjani's glosses on Isfahani's present commentary.]

⁷⁹ L and MS gl: As water, for example. [From Jurjani's glosses on Isfahani's present commentary.]

⁸⁰ Capacity [tamakkun]—MS gl: I.e., the power of the distance [qudrat al-masāfah].

⁸¹ MS gl: I.e., weakness of the distance [ʿajz al-masāfah].

⁸² MS gl: But rather, in an instantaneous 'moment' [fī ānin].

⁸³ Two glosses: 1. MS: Because 'motion-change' is constituted by the gradualizing of existence [tadrījīyat al-wujūd].

Then, if we were to assume that a certain [particular] body would move with a certain [particular] force in a parasang of 'void', and if the time duration for the occurrence of the motion within the parasang of void should be an hour, while within one parasang of plenum it would be ten hours, and within another plenum, whose degree of dense resistance [to passage] would be a tenth that of the first [of the two plena], it would be an hour, then the time duration for movement [through the distance] having the second [and lesser degree of] impediments would be like the time duration for movement [through the distance] having no impediments. But this would be contrary [to the hypothesis].

c) The third [main] reason that a 'place' would not be a 'void' is that, if [a 'place'] should be a 'void', equally whether it should be pure nonexistence⁸⁴ or an apparent space dimension,⁸⁵ then the occurrence of a body on one side of [the 'void'] would not be preferable⁸⁶ to its occurrence on another side. This is because there would be no difference in it at all, on account of the impossibility of there being any difference [either] in [a case of] pure non-existence or in [terms of] the parts of an apparent space dimension, L 184 since all sides of [the latter] would be equal in their relationship to the body. Thus, the occurrence of a body on one of its sides would not be preferable to its occurrence on another [side]; nor would the body come to rest on one of its sides, nor would it incline to it, because its occurrence on one of them would not be preferable to its occurrence on another, nor would its inclination to one be preferable to its inclination to another.

a)-a. The answer to the first [main] reason that a 'place' would not be a 'void' is that we⁸⁷ prefer [to say] that the 'void' is not an existent.

2. L 183: So its occurrence in a 'moment' would be inconceivable, but it would be in a 'time duration'.

⁸⁴ L gl: I.e., an assumed space dimension [bu'dan mafrūdan], as is the doctrine of the Mutakallimun.

⁸⁵ Glosses: 1. L: I.e., an abstract, apparent space dimension, as is the doctrine of Plato. 2. MS: I.e., equivalent to a firmly fixed space dimension [musāwiyan li-bu'd al-mutamakkin].

N.B., L and MS Garrett 989Ha read: [mushābihan]; T and the MS: [mutashābihan].

⁸⁶ The MS omits the following phrase.

⁸⁷ MS gl: This is the answer from the standpoint of the Mutakallimun.

[Baydawi's] statement is that if it should be nonexistent externally, then it would not be receptive to increase and decrease.

Our [Isfahani's] position is that the increase and decrease are hypothetical considerations, and that what is nonexistent would be receptive to increase and decrease as a hypothetical consideration.

1)–a. The reply⁸⁸ to the first [subordinate] reason that the void would not be existential is that we do not grant that if a body were to exist in abstract space, then the interpenetration and the unification of the two spaces would be implied.

[Baydawi's] statement is that then the abstract space would not be distinguishable from space with a firmly fixed space dimension.

Our [Isfahani's] position is that we do not grant it; but what he intends to say is that there would be no sensate perception of the two spaces. But the lack of a sensate perception of the two [kinds of] space simultaneously would not necessitate their interpenetration and unification, to such an extent that to allow the interpenetration of the two spaces MS 90b would be to allow the interpenetration of the universe within the spatial domain of a single mustard seed, which would be impossible.

2)–a. The reply [i.e., from the standpoint of Plato], to the second [subordinate] reason that the void would not be existential, is that the abstraction of a space dimension would be due to some accidental quality.

[Baydawi's] statement is that if its abstraction should be due to some accidental quality, then whatever would have need for a substrate would not have need for it due to some accidental quality.

Our position is that we do not grant, that if the abstraction of a space dimension from a substrate should be due to some accidental quality, then the implication would be that the space dimension of its own essence would have need for a substrate. Indeed, the essence of the space dimension as such requires neither a lack of need for a substrate nor T 84 a need for it. Thus, the abstraction of the space dimension [from the substrate] due to some accidental quality would not require that it have need for a substrate to such an extent that it would imply something impossible.

3)–a. The reply [i.e., from the standpoint of Plato], to the third [subordinate] reason that the void is not existential, is that

⁸⁸ MS gl: From the standpoint of Plato.

a space dimension abstracted from matter would not be receptive to motion, and an abstracted space dimension's lack of receptivity to motion does not prevent necessarily the motion of the space dimension in a material sense. Therefore, there would be no implication that bodies would not have motion, because the space dimensions of a body would be material, and material space dimensions do not prevent the receptivity to motion.

b)–a. The answer⁸⁹ to the second [main] reason that a 'place' would not be a 'void' is that motion-change, because of its own essence, requires a time duration. This is because, if motion-change because of its own essence should not require a time duration, then motion-change would be in a void,⁹⁰ not in a time duration. But how would it be possible for motion-change not to be within a time duration? Motion-change as such is something that cannot be confirmed except over a distance L 185 that could be divided and broken up into parts, and thus, through the division of the distance, it would be divided and broken up into its parts.⁹¹ Some of these parts would be antecedent while other parts would be subsequent, and that [process] cannot be confirmed unless it would be together with a time duration.

Our [Isfahani's] position is that motion over a distance of one parasang would require a certain time duration due to its normal state, plus another time duration due to whatever [extra] impediment there might be in the distance. The time duration rightfully expected due to the impediment in the distance is what would decrease, from [the transit time of] the body, due to any sparsity of resistance throughout the distance, and it is what would increase due to the density [of resistance].

So if that should be the case, then the time duration that would be normal for the transition movement itself would be one hour, according to the hypothesis mentioned, while the time duration [needed for transition] of the sparse [impediments of the second] plenum would be one hour plus one tenth of nine hours. Regarding the [single] hour, that is because of the original movement; MS

⁸⁹ MS gl: On the part of the Mutakallimun.

⁹⁰ MS glosses: 1. I.e., all at once [duf'atan]; 2. I.e., in a moment [ay ft al-ân]; 3. Because there would be no hindrance at all [laysa al-'āyiq ašlan].

⁹¹ Reading with T, showing a full parallelism that is variously elided in L, the MS and MS Garrett 989Ha.

91a and regarding the tenth of nine hours, that is due to the impediment throughout the distance. Now, the degree of resistance [from the sparse impediments in this second plenum] is one tenth of the degree of resistance in the first plenum. The time duration for the transition of the first plenum is ten hours, one hour of which is due to the original movement, and nine hours are due to the [extra] impediment throughout the distance. The degree of resistance in the sparse [plenum] is one tenth of the degree of resistance in the dense [plenum]. Therefore, the time duration that is due to the impediment in the sparse [plenum] is one tenth of the nine hours that are due to [the impediment in] the dense [plenum].

The result [of this reasoning] is that the contradiction that you have established [i.e., in b) above] would be complete only if the whole time duration should be set into correlation with the impediment.

But if some of [the time duration] should be set into correlation with the [original] transition [without impediment], and some of it into correlation with the [transition with] impediment, then the transition in the void would occur in the time duration that the transition would require by itself [as an abstraction], while the transition in the plenum, however it might be [i.e., whether with sparse or dense impediment] would occur within that [original] time duration plus another measure of time that the transition would have rightfully on account of whatever impediment there would be throughout the distance.

And so the contradiction would be refuted.

c)-a. The answer to the third [main] reason that a 'place' would not be a 'void' is that the 'void' is an apparent space dimension, that is equal to the space dimension of the universe. It is not conceivable that the universe should exist in one side of it to the extent that the impossibility you have mentioned would be implied. Rather the whole of the universe exists in the whole of it.

Regarding the occurrence of some of the bodies⁹² in some of its regions,⁹³ that is because of the compatibility and incompatibility between the two [categories] and the required nearness or remoteness from those bodies. So a difference occurs in the void on account of the nearness to or remoteness from those bodies, and compatibility

⁹² MS gl: Of the universe.

⁹³ MS gl: Of the apparent space dimension.

or incompatibility between the two [categories]⁹⁴ occurs on account of them both.⁹⁵ Indeed, the earth shuns the circumference and seeks the center on account of its own nature that requires heaviness in an absolute sense, so it requires nearness to the center L 186 and remoteness from the circumference. And the fire seeks the circumference and shuns the center because of its nature that requires lightness in an absolute sense, so it requires nearness to the circumference and remoteness from the center.

An objection has been raised against the argument of those who hold that 'place' would be an 'interior surface', to the effect that the doctrine of it being a surface is invalid. [This is] because, if 'place' should be a term MS 91b for the inner surface of a container that [also] contacts the outer surface of what is contained, then the bodies would become an infinite series.

The conclusion is false, because of the limitation of the space dimensions. An explanation of the logical necessity used here is that every body would have a 'spatial domain', and its 'spatial domain' would be the inner surface of [another] containing body. Thus, a body ['body b'], that would be a container [for something else, i.e., 'body a'], would have a spatial domain [of its own],⁹⁶ and its own spatial domain [i.e., of 'body b'] would be the inner surface of [another body] [i.e., 'body c'] that would [in turn] contain ['body b'] and would contact ['body b's] outer surface; and so forth, and then there would be an implicit infinite series argument.

Another objection could be raised refusing to grant that every body would have a place, for whoever would say that a place would be a surface would [also] say that [the series of] bodies would terminate at a body that would have no 'spatial domain', while yet it would have a position.⁹⁷

⁹⁴ L omits "between the two [categories]."

⁹⁵ MS gl: I.e., on account of the natures of the bodies.

⁹⁶ Gloss L 186:1. It is said that in their view a 'spatial domain' [ḥayyiz] is the criterion by which bodies are sensately distinguished from each other, 'spatial domain' being a more general term than 'place' [makān] and is used to deal with the precise position [wad'] in which one defined thing [muḥaddad] may differ from another in a reference. Thus, a thing would be 'within its spatial domain' [mutaḥayyiz], but would not be in a 'place'.

⁹⁷ Glosses

1. MS: As the greatest celestial sphere, that is, it has 'position' and 'permanence' [taqarrur] and it is referred to in sensate terms, but it does not have 'place' [makān] because it has no dimensions [mujarrad al-jihāt].

Moreover, if 'place' should be a term for the inner surface of a container that contacts the outer surface of what is contained, then when water would flow over a stone at rest [the stone truly] would not be at rest in its place.⁹⁸

But the conclusion is false by inherent necessity. To explain the logic [used here], it is that the flowing movement [of water over stone] would constitute a distinct change of one surface to another surface, on the assumption that a 'place' would be a 'surface'.⁹⁹ When the water would flow over the stone, then a distinct change of one surface to another surface would take place for it, and thus [the stone] would become something in motion and so would not be at rest.

It cannot be held that the stone's rest would be a continuance of its relationship with things that are at rest, and that when the water would be flowing over the stone, its relationship with the things at rest would remain, and thus it would be at rest.

Our [Isfahani] position is that the continuance of the relationship of the stone to the things at rest would be caused by its resting, because its relationship to the things at rest would continue only because it would be at rest. Thus, it would not be valid to interpret the [stone's] resting as a continuance of its relationship to the things at rest.

Another objection might be raised that the movement would be the transition of a moving body from one surface to another surface, not the separation of one surface away from the moving body T 85 and the linking of another surface to it. So, in that case¹⁰⁰ the resting would be in relationship to the stone, and the motion would be in relationship to a portion of its 'place'.

2. L 186:2. Only; for its motion would be positional [wad'iyatan] requiring a change of positions, not of places. [From Jurjani's commentary on Ijī's *Mawaqif*.]

3. L 186:3. As the greatest all-encircling sphere does not have 'place', but [it has] 'position' [wad'] only. [From 'Ibri's commentary on Baydawi's text.]

⁹⁸ The MS omits "in its place."

⁹⁹ I.e., the undersurface of the water flowing over the stone would be the ever-changing 'place'.

¹⁰⁰ L and MS gl: This has a commonality of implication, meaning, just as it affects [yaridu 'ala'] the doctrine of Aristotle so it affects the doctrine of the Mutakallimun and of Plato, because (here the MS omits the protasis): if a 'place' should be a visible space dimension [bu'd] or one (merely) postulated, in accordance with the opinion of them both, then the implication would be that there would be an increase and decrease of the space dimension, with the resident entity [al-mutamakkin] continuing as it was.

Furthermore,¹⁰¹ if 'place' should be a term for a 'surface', then the implication would be that there would be an increase and decrease of the place, while the resident entity would remain as it was. It would be just as when [a ball of] wax would be made cubical. The surface surrounding the wax when it would be cubical is greater than the surface surrounding it when it is a ball. The entity resident [i.e., in the 'place'] continues as it was, although the 'place' has increased when it is made cubical, and vice versa, as when [a piece of] wax is made spherical; for the surface surrounding the wax when it is spherical is smaller than the surface surrounding it L 187 when it is cubical.

Another objection could be raised by someone refusing to grant that when the surface surrounding the wax would increase, the wax would remain as it was, for when the wax is cubical it has a structure and shape that it does not have when it is spherical.

One proof of MS 92a the possible existence of the void is that if a [flat] smooth surface should be fitted over a corresponding [flat] smooth surface, and if the upper surface should be suddenly lifted, then the intermediate [space] would be an empty void just as the time duration of the lifting would begin, because the movement of the body¹⁰² from the [out]side to the center, either would not be required to pass across the edge, which would be obviously wrong, or it would be so required. In that case, when it would be at the edge, either it would be in the center also, which would be obviously impossible, or it would not be, and when the moving body [of air] would be at the side, then the center would be an empty void, which is the goal of the logic.¹⁰³

Another objection could be raised that the removal [i.e., of the upper flat surface] would result only through a motion-change, and a motion-change would occur only in a time duration, and in that

¹⁰¹ L gl: This point is conclusive [ilzāmī] and is based upon what is granted by the disputants.

¹⁰² MS gl: [I.e., the body]-like air.

¹⁰³ L gl: This point is convincing [ilzāmī]—based upon what is granted in the dispute—but not conclusive [burhānī], as being composed of what is true in accordance with the case itself, for with the Mutakallimūn the movement of the air to the center from the borders would not be necessary, but rather, God would create [the air] within [the center] all at once, and its being empty of anything to occupy it would not be implied at all [aṣlan]. [From al-Sayyid al-Sharīf al-Jurjānī's *Sharḥ Maṭaʿif* [al-Ijī].]

time duration the body [of air] would have moved to the center.¹⁰⁴

Moreover, if [here] there should be no void, then the implication from [the case of] the motion of a gnat would be the mutual repulsion of the whole universe. For if the moving body [i.e., of air] should transit to a place, then either

- a. [the place] would be full, or
- b. it would be empty, the second alternative being the conclusion desired.

The first [alternative above] inevitably would require either that

- 1. [a second body of air] should move to the place of the [first] body [of air] that had transited to its place, or
- 2. [the second body should move] to some other place.

Now, the first [of these latter two alternatives] would be invalid, because the movement of the [first] body [of air] away from its place would be dependent upon the movement of what [i.e., the second body of air] would move to it. So if each of the two were to move to the place of the other, then the implication would be that the movement of each of the two depended upon the movement of the other, and a circular argument would be implicit.

And the second [of these latter two alternatives] would be invalid, because what would be said about the manner of that [second] body's transition would be the same as what is said about the transition of the first body, and the implication would be that there would be a mutual repulsion of all bodies, so that from the movement of a gnat would be inferred the movement of the whole universe, which certainly would be absurd.

It cannot be held that what is behind [the body of air] would expand and what is before it would compact¹⁰⁵ because the size is something additional to its corporeality, for it would not be impossible that some of the body's size should vanish and after that another greater or lesser size should come to be in it.

Our position is that the loss of one size and the attainment of another [size] would be a corollary to [the doctrine of] the existence

¹⁰⁴ MS gl: And in that case there would be no empty void.

¹⁰⁵ MS gl: 'Expansion' [al-takhalkhul] is a term for the increase of that body's size, without the addition [inḍimām] of another body to it, while 'compaction' [al-takāthuf] is a term for the decrease [intiḳās] of the body's size without anything being missing [naqṣ].

of primal matter, and [the doctrine of] size measure being an accidental quality, and [we consider that] both of these are impossibilities.¹⁰⁶

However, an objection could be raised that a proof demonstration has been given for [the validity] of them both.

¹⁰⁶ MS gl: Thus, the void would be something existent.

CHAPTER 3: QUALITY

A process of induction indicates that this category [of quality] is comprised within four divisions:

- a. Sensate qualities;¹
- b. Psychic qualities;
- c. Qualities specific to quantities; and L 188
- d. Qualities of predisposition.

1. *Sensate qualities*

Classes of sensate qualities

- a. [A general division.]

1. If sensate qualities are deep rooted they are called 'actively affective qualities' [i.e., reaction producing],² but

2. if they are not [deep rooted] then [they are called] 'passively reflex reactions'.³ [This distinction is] on account of whether there is a passive sense reaction to them or not, or because the qualities derive from a blended constitution, either in an individual entity as the sweetness of honey and the redness of blood, or of a specific kind [of blend] as the heat of fire and the coldness of water.

b. [A specific division.] These [sensate qualities] are [further] classifiable in accordance with the division of the five external senses, as follows:

1. The sensations of touch, namely, heat and cold, wetness and dryness,—these [four] being called 'primary qualities', because the

¹ The term 'sensate' is here preferred to translate this meaning, as being free of the irrelevant connotations of the term 'sensible', which is often used otherwise.

² Cf. Aristotle's "affective qualities", which "produce on others a corresponding affection"—*Categories* 8, H.G. Apostle's translation, p. 17.

³ M. Saeed Sheikh in his *Dictionary of Muslim Philosophy* defines the [infī'ālāt] as "sensible qualities of things or persons such as are of [a] transitory nature, for example the blush on the face of [a] man on account of some embarrassment . . ." In contrast, the [infī'āliyyāt] are defined as "sensible qualities of things such as are firmly rooted in them like sweetness in honey or salinity in brine."

simple elements are modified by them first of all,—also lightness and heaviness, hardness and softness, smoothness and roughness;

2. The sensations of vision, namely, colors and light sources;
3. The sensations of hearing, namely, sounds and letters;
4. The sensations of taste, namely, food tastes;
5. The sensations of smell, namely, odors.

Isfahani says:

L 188, T 85, MS 92a

CHAPTER 3: QUALITY

A process of induction will indicate that this category, namely, the category of quality, is comprised within four divisions:

- a. Sensate qualities;⁴
- b. Psychic qualities;⁵ MS 92b
- c. Qualities specific to quantities;⁶
- d. Qualities of predisposition, that also may be termed 'predispositions'.⁷

The aspect from which each grouping is made is [as follows]:

(a.) The accidents of quality either are perceived by one of the five senses—touch, hearing, vision, taste and smell,—these being the 'actively affective qualities', and the 'passively reflex reactions', or, they are not perceived by one of the five senses.

(b.) In the latter case, either they are specific to creatures having rational souls, that is, they are psychic qualities, or, they are not specific to creatures having rational souls.

(c.) And in this latter case, either they are specific to quantities, that is, they are accidents of quality specific to quantities, or they are not specific to quantities.

(d.) [Those that remain] constitute the 'predispositions.'

⁴ MS gl: [Perceived] by the external senses.

⁵ MS gl: I.e., those specific to creatures having soul-intellects [dhawāt al-anfus].

⁶ MS gl: As quadruple and triple.

⁷ MS gl: The predisposition would be either an [intentional] predisposition toward perfect [states] [kamālāt] or their contraries, as a curative [mishāḥīyah] or sickening [mimrāḍīyah] [quality], or [it would be] the perfect [states] or their contraries themselves, as are health and illness.

1. *Sensate qualities*

The first topical division, namely, the sensate qualities, [Baydawī] placed at the beginning because it is the most obvious of the classes, and in it he set forth six subtopics: a. Classes [of sensate qualities]; b. Touch sensations; c. Vision sensations; d. Hearing sensations; e. Taste sensations; f. Smell sensations.

Classes of sensate qualities

a. [A general division.]

1. If the sensate qualities are deep rooted,⁸ as the yellowness of gold and the sweetness of honey, then they are called 'actively affective qualities' [i.e., reaction producing]; but

2. if they are not deep rooted, as the red blush of embarrassment and the yellow blanch of fear, then they are called 'passively reflex reactions'.

(1.) The first kind of [deep rooted] qualities are called L 189 actively affective qualities' for two reasons only.

a) The first reason is that a passive reaction in the senses is brought about when these qualities are sensately perceived; and

b) the second reason is that they occur as a derivative from a blended constitution, either in an individual entity, as the sweetness of honey and the redness of blood,—for each of these two [sensations] is derived from a blended constitution and [each] would not be realized except when the substance is acted upon,—or as a specific kind [of blend] as the heat of fire and the coldness of water. For even if the heat in fire and the cold in water do not come about by passive reaction,⁹ nevertheless it is normal from the nature of heat and the nature of cold that each of these also¹⁰ should come about as a passive reaction that is their own constitution.

(2.) The second kind of [not deep rooted] qualities are called 'passively reflex reactions',—they are not called 'actively affective qualities' even though it would be admissible to call them 'actively affective qualities,'— MS 93a for two reasons only:¹¹

⁸ MS gl: I.e., permanent [dā'imah].

⁹ MS glosses: 1. Because they lack composition; 2. But rather, by their own nature.

¹⁰ MS gl: I.e., by their own nature.

¹¹ MS gl: [Also including] those mentioned in naming the deep rooted qualities.

a) because, on account of the speed of their vanishing and the shortness of their duration, the name of their genus is kept from them,—as one would say of something of little note, “It is nothing”,—but

b) they are given the name of the process of renewal and change, that is, ‘passively reflex reaction,’ this name being transferred to them because of the similitude.¹²

b. A specific division: the sensate qualities are [further] classifiable according to the division of the five external senses, as follows:

1. Touch sensations, namely, heat and cold, wetness and dryness. These four are called primary accidents of quality, because the simple elements are modified by them, being never without them,—contrary to the other sensations of touch,¹³—and because they are the ones felt first and in their essence,—contrary to the others,¹⁴—for [the other sensations of touch] are felt through them. Others among the sensations of touch are lightness and heaviness [of weight], hardness and softness, smoothness and roughness. Discussion of the sensations of touch has preceded only because they are general, and relate to every living being, for all living beings perceive them and no [living] body is without them.¹⁵

2. Vision sensations, namely, colors and light sources.

3. Hearing sensations, namely, sounds, and the letters.

4. Taste sensations, namely, food tastes.

5. Smell sensations, namely, odors.

Baydawi said:

L 189, T 86

1. *Touch sensations*

a) *Temperature: heat*

1) Heat and cold are among the most obvious and plain sense perceptions. Heat has the specific ability

aa) to separate diverse [elements] and

bb) to join elements that are similar, since it boils up what is finer to be yet more fine, and each portion joins what resem-

¹² MS gl: I.e., the similitude between them in renewal and change.

¹³ MS gl: And by being subsequent to the simple elements compounds are modified as a second step.

¹⁴ MS gl: Like hardness and softness.

¹⁵ MS gl: I.e., are without the sensations of vision, hearing, smelling and tasting.

bles it according to the requirement of its nature, except when the cohesion is strong. [Heat]

cc) produces flux and circulation, if what is fine L 190 and what is coarse should be nearly equal, because of whatever adherence and attraction there is in them, as in gold; and [heat

dd) produces] melting¹⁶ if the coarse predominates, [but] not extremely, as [in] iron; and [heat causes things] to vaporize altogether, if [the heat] should increase, and if that which is fine is greater in amount.

It is most likely that natural heat¹⁷ is different from the heat of fire, and likewise, [from] the heat that emanates from the heavenly bodies.

An objection is raised a) that [natural heat] would be the heat of a fiery atom that is broken, and b) that heat may occur through motion-change, the proof of this being through experiment.

[In answer to this objection] no one can say that, if motion-change should be what causes heat, then the three elements [other than fire] would become heated, and there would be a conflagration due to the motion-changes of the heavenly spheres. This is because the heavenly spheres are not receptive to heat, and so they do not become heated, and do not heat what is near them.

Isfahani says:

L 190, T 86, MS 93a

1. *Touch sensations*

The sensate qualities perceived through the external senses do not need to be explained by delimiting and descriptive definitions, since there is nothing more obvious than the sense perceptions. But perhaps they do need attention given to what is usually understood by the names of some of them, because of their confusion with something else. Thus [scholars] did not intend that the specific qualities they mentioned [of the sense perceptions] were to serve as definitions of them, but rather, they intended [what they set forth] to be an explanation of their distinguishing properties.

¹⁶ L: [talayyun]; T: [talyīn].

¹⁷ T: [al-ḥarārah al-gharīfīyah]; L: [. . . al-gharīfah].

a) *Temperature: heat*

1) Heat and cold are among the most obvious and plain sense perceptions. They are both active qualities, and through them both the form¹⁸ acts upon matter.¹⁹

Heat has the specific ability to

aa) separate diverse elements and to

bb) join similar elements, since it produces a tendency to vaporize when it is increased. For when fire affects a compound of bodies that differ in fineness and density it causes the finest [of them] to boil up into vapor, MS 93b and then the next finest. The finest [element] is most receptive to vaporizing from heat, as air, that is more receptive [to vaporizing] than earth, since the most receptive quickly boils up before the slowest. Thus there is a disintegration²⁰ in the bodies that have differences in their primary natures, from whose cohesive integration²¹ composite bodies have originated. When the parts are separated, every part joins with what resembles it through the requirement of its own nature, except when the cohesion between the parts is strong.

cc) Heat produces flux and circulation without separation, if the fine and the coarse are nearly equal, because of the adherence and attraction that persists between things fine and coarse, as in gold. If the cohesion is strong, heat is not able to cause separation, for when the finer element tends to boil up, the coarse element attracts it to descend [inḥidār], and so a flux and circular motion take place.

dd) Heat produces a softening, if that which is coarse predominates, but not to the extreme, as iron; but if L 191 the coarse predominates to the extreme, heat does not provide flux and softening, as in stones. Heat produces a general melting if it increases when the fine material is greater than the coarse, as in the case of bitumen.

¹⁸ MS gl: I.e., substantial [form] [al-naw'iyah]. Mourad Wahba [*al-Muḥjam al-Falsafī*] identifies [al-ṣūrah al-naw'iyah] as the 'substantial form.' Bernard Wuellner [*Dictionary of Scholastic Philosophy*] relates this to and identifies it with the 'formal cause.'

¹⁹ MS gl: I.e., the matter of the neighboring entity. [From al-Sayyid al-Sharīf al-Jurjani's gloss on Isfahani's commentary.]

²⁰ L: [tafarraqa]; T and MS: [yatafarraq].

²¹ L and MS: [iltiyām], a more colloquial variant of [ilti'ām] as used by T. Baydawi's text has the synonym [iltihām].

It is most likely T 87 that natural heat²² is different from the heat of fire in actuality, because the heat of fire is destructive of life while natural heat is a condition for the existence of life. Likewise heat that emanates from the heavenly bodies, as the sun's heat, is different from the heat of fire in actuality.

An objection has been raised a) that natural heat would be the heat of a fiery atom whose wall is broken when the elements²³ interact upon one another; and b) that heat may occur through motion-change, the proof of this being in experiment.

No one can say that if motion-change should be what causes heat, then the three elements of air, water, and earth would have become a conflagration because of the motions of the celestial spheres. The conclusion here would be false. Indeed, our position is that the celestial spheres are not receptive to heating; thus they would not become hot in their essences, and they would not give heat to any elements near them.

Baydawi said:

L 191, T 87

b) *Temperature: cold*

Coldness is said to be the absence of heat. But this [explanation] is not allowable, because what is sensately perceived would not be the absence of heat. Nor would it be the body [that is sensately perceived]; otherwise, to have a sense perception of the body would be to have a sense perception of the coldness.

Isfahani says:

L 191, T 87, MS 93b

b) *Temperature: cold*

Coldness is said to be the absence of heat. This [explanation] is not allowable, because coldness is something sensately perceived, and what is sensately perceived would not be the absence of heat. Nor is it the body [that would be sensately perceived]; MS 94a otherwise, a sensate perception of the body would be a sensate perception of the coldness. But rather, the coldness is an existential quality,

²² MS gl: I.e., the difference between the two is in their kinds, not in the individual examples themselves.

²³ L: [al-'unşur]; T, MS, and MS Garrett 989Ha: [al-'anāşir].

and between it [i.e., coldness] and heat there is an opposition. They both are existential qualities that come one after the other to a single subject-substrate, and between these two [qualities] there is the utmost difference in nature.

Baydawi said:

L 191, T 87

c) *Humidity*

Regarding 'wetness', the Imam [F.D. Razi] has said that it is the moisture that promotes both the ease of clinging [to another body] and of separation [from it]. But the position cannot be taken that therefore honey would be more wet than water since it is more clinging than it, because honey is removed with difficulty.

[Other] philosophers have said that wetness is a quality that promotes ease both of accepting and of abandoning a 'shape'. But wetness is not a flux, for that is a term for the motion-changes existing among bodies, [such motion-changes] being discontinuous in reality, but continuous to one's sense perception, with some of the bodies pushing against others, to the extent that if such a condition should exist in the dust [of the ground], it would be fluid.

'Dryness' is the opposite of 'wetness,' according to both views.

Isfahani says:

L 191, T 87, MS 94a

c) *Humidity*

The Imam [F.D. Razi] has said that 'wetness' is the moisture that flows on the surface of the body and serves to promote both an easy clinging²⁴ to another [body] and easy separation from it. Thus water is wet but air is not such.

The position cannot be held that if L 192 'wetness' were such then honey would be more 'wet' than water since honey is more clinging than water,²⁵ because then the rebuttal would be that even

²⁴ F.D. Razi, whom Baydawi generally calls "The Imam", mentions an argument of 'the philosophers' having to do with the clinging nature of wetness in his *Muhassal*, p. 94 of the Cairo reprint of the 1323 A.H. ed.

²⁵ MS gl: The author of this statement is the Shaykh [al-Imam] Abu 'Ali [Ibn Sina].

A general discussion of the topic is in Ibn Sina's *al-Isharat wa-al-Tanbihat*, with commentary by Naṣīr al-Dīn al-Tūsī and super-commentary by Qutb al-Dīn al-Rāzī, [Teheran, 2nd ed. 1453], pp. 245 ff., with reference there to the original discussion in Ibn Sina's *Shifā'*.

if honey should be more clinging than water one still separates from it with difficulty, while wetness promotes easy separation. Water is like that, and so it is more wet than honey.

The philosophers have said that 'wetness' is a quality that promotes ease of accepting a change in shape to be the shape of the immediate container,²⁶ and also ease of abandoning [that particular shape].

But wetness²⁷ is not a flux, for flux is a term for motion-changes that exist among bodies, [the motion-changes] being discontinuous in reality [but] continuous to sense perception, with some bodies pushing against others to the extent that if that situation should exist in the dust [of the ground] then it would be fluid.

'Dryness' is the opposite of 'wetness,' according to both interpretations. According to the first, it is desiccation. According to the second [i.e., of the philosophers], it is a quality that causes a body difficulty in adjusting its shape to the shape of an immediate container, and difficulty in abandoning [the shape taken]. Thus, dryness is the opposite of wetness, and desiccation is the opposite of moistness.

Wetness and dryness are both actively affective qualities [i.e., reaction producing] that make matter predisposed to passive and reflexive reaction to something else, but between them [wetness and dryness] there is opposition.

Baydawi said:

L 192, T 87

d) *Weight*

'Lightness' and 'heaviness' are two forces sensately perceived as coming from their substrate and, through each of them, as a propulsion upwards or downwards. The Mutakallimun call these [forces] dependent, while the philosophers call them a natural tendency.

[The propulsion] does not exist in a body that is occupying its natural domain, because of the impossibility of a propelling force coming either away from it or toward it.

Then, it may be that the tendency would be psychologically voluntary, as would be the dependency of a person upon someone else,

²⁶ MS gl: As water in a jug.

²⁷ MS gl: In both interpretations [i.e., Ibn Sina's and the philosophers].

and [sometimes] it is compulsory, as would be the tendency of a stone thrown upwards.

Sometimes two tendencies may be joined together [to go] in one direction, as would be the case of a stone thrown downwards, and the case of a man going down [a slope]. Or, [they may be joined to go] in two [different] directions, if we should interpret [the tendency] as that which causes propulsion, not as [something being moved] by it. For that reason there would be a difference in the status of two stones that would be thrown upwards with one and the same force when the two would differ [from each other] in being small and large.

Isfahani says:

L 192, T 87, MS 94a

d) *Weight*

'Lightness' and 'heaviness' are qualities of touch consisting of two forces sensately perceived [as coming] from their substrate, and through the two of them [there is perceived] a propulsion upwards in relation to 'lightness' and a propulsion downwards in relation to 'heaviness'. The propulsion upwards is [perceived as coming] away from the center [of the universe], and the [propulsion] downwards [as going] to the center [of the universe]. The first is like an inflated bellows floating at rest in water, while the second is like a stone thrown downwards. MS 94b

The Mutakallimun call lightness and heaviness dependent [in nature],²⁸ while the philosophers call them a natural tendency. But a [force of] natural tendency would not exist L 193 in a body occupying its natural domain, since, if a [force of] natural tendency should exist in a body occupying its natural domain, then it would be [directed] either away from its natural domain or towards its natural domain, both of these alternatives being absurd. This is so because 1) it would be impossible for a propulsive force to be directed away from its natural domain, otherwise, the goal naturally sought would be naturally avoided; and because 2) it would be impossible for a propulsive force to be directed towards its natural domain, because of the absurdity of seeking for what is already present.

²⁸ MS gl: I.e., intentionally so [qaşdan].

Then sometimes a tendency will be something psychologically voluntary in that it would come from the psyche of a body having a will, as would be the dependence of one man upon another.²⁹

Sometimes [the tendency] will be something natural, in that T 88 it would come directly from a body not having a will, as with the inflated bellows floating at rest on water.

Sometimes it will be something compulsory in that it would come from outside a body, as would be the tendency of a stone thrown downwards.

Sometimes two tendencies will join together [to move] in a single direction, [tendencies both] natural and compulsory, as would be the case of a stone thrown downwards, for in it there would be both a natural tendency and a compulsory tendency downwards, and because of that its motion would be swifter than it would be if it moved downwards only by its own nature.

Or, one of [the tendencies] will be natural and the other psychologically voluntary, as it would be with a man coming down from a mountain, for sometimes both the natural and the voluntary tendency will join in the direction downwards in his case.

Sometimes two tendencies will join together [but move] in two [different] directions, if we interpret tendency as the force causing the propulsion, not as the propulsion itself, since propulsion both towards a single thing and away from it simultaneously would be impossible. For that reason,—that is, because it is admissible for two tendencies to join together [but move] in two [different] directions when we interpret them as what causes the propulsion,—the status of [each of] two stones thrown upwards in a single force [of throwing] would differ in swiftness and slowness when the two would differ in smallness and largeness [of size]. This is because the natural [downward] tendency in the large stone would be greater than that in the small stone, and it would be in a direction different from the compulsory tendency [of the throw upwards]. Therefore, the hindrance [noted] from the motion [upwards] in the compulsory [thrown] motion of the large stone would be stronger, and so its motion would be slower.

An objection might be raised that the tendency would be the immediate cause of the propulsion, so the propulsion may not be

²⁹ MS gl: [Or], as the inclination of the lover to the beloved.

separated from it, because if two tendencies should join together but move in two [different] directions, the implication would be that there would be both a propulsion away from a thing and a propulsion toward the thing simultaneously, which would be absurd.

The movement of the large body would be slower only³⁰ because the hindrance MS 95a upon it³¹ would be larger, and that would be because [its heavier] nature would be what would hinder the compulsory [upwards] motion. There would be as much hindrance upon the large body as upon the small one, and more.

Baydawi said:

L 193, T 88

c) *Texture*

'Hardness' is a term for the resistance [perceived] against the pressure of touch, while 'softness' is the absence of that [resistance]. It is also held L 194 that they are two qualities that are consequent upon the two [conditions].

'Smoothness' and 'roughness' are an evenness in the position of the [body] parts or an unevenness in them, for they are both in the category of 'position', unless we should interpret them as two qualities both derivable from [the category of] 'position.'

Isfahani says:

L 194, T 88, MS 95a

c) *Texture*

'Hardness' is resistance to the pressure of touch, while 'softness' is the lack of any resistance to the pressure of touch. Thus, the two are opposites, as lacking [something] and having [it] are opposites.

It is also held that 'hardness' is a quality requiring a lack of receptivity to the pressure of touch inward. By it a body has a consistency that is not fluid, so it neither moves out of position,³² nor does it extend itself, and it does not become separated easily. The lack of receptivity to the pressure of touch and the nonseparability are only because of dryness.

³⁰ MS gl: This is a [further] answer to the commentator's statement, "For that reason,—that is, because it is admissible . . ."

³¹ MS gl: Because in it there are two tendencies.

³² MS gl: I.e., shape [shakl].

'Softness' is a quality requiring receptivity to the pressure of touch inward. By it a body has a consistency that is³³ [seemingly] fluid, so it moves out of its position, but it does not extend far,³⁴ and it does not easily become separated.³⁵ The receptivity to the pressure of touch is only because of its moistness, and its holding fast together³⁶ is only because of its dryness.

Thus, 'hardness' and 'softness' would be 'qualities of predisposition'.³⁷

The Imam [Abu 'Ali Ibn Sina] stated, "It has been said, 'Hardness is what resists the pressure of touch.'"³⁸

In this [statement] there are three matters [to note]:

- 1) The lack of receptivity to the pressure of touch;³⁹
- 2) The continuance of shape.⁴⁰
- 3) The continuance of resistance.

'Hardness' is not [the same as] 'resistance', because the air blown into the bellows gives resistance, but it is not hard.⁴¹ So then 'hardness' is a strong predisposition toward nonpassivity.

[Ibn Sina also said]: "The statement has been made, 'Softness is what is receptive to the pressure of touch under [one's] finger.'"⁴²

In this [statement] there are also three matters [to note]:

- 4) Motion-change;⁴³
- 5) The shape;
- 6) The predisposition to be receptive to the pressure of

touch.

But 'softness' comprises only the last [of these]. Thus, 'hardness' and 'softness' are two qualities through which a body has a predisposition

³³ L adds in error: [ghayr].

³⁴ T omits the negative [lā] in error.

³⁵ Sources used vary, but this statement should be in the negative, as the following sentence shows: [. . . wa-tamāsukuhu bi-sabab al-yubūsah]. Ibn Sina's *Kitāb al-Isharat wa-al-Tanbihat* [Teheran 1453], v. 2, p. 247 has this and the preceding statement in the negative.

L and T: [wa-yatafarraq bi-suhūlah]; the MS, MS Garrett 989Ha, and MS Garrett Yahuda 4486: [wa-lā yatafarraq bi-suhūlah].

³⁶ MS gl: I.e., the lack of separability.

³⁷ MS gl: Not qualities of touch.

³⁸ Ibid., v. 2, p. 247.

³⁹ MS gl: Being nonexistent it would not be an accidental quality.

⁴⁰ Gloss in L and MS: I.e., a shape that continues as it was is one of the qualities specific to quantities.

⁴¹ MS gl: Likewise, a strong wind has resistance in it, but no hardness.

⁴² Ibn Sina, *ibid.*, v. 2, p. 247.

⁴³ MS gl: I.e., the motion-change that is in what is receptive to the pressure of touch [al-munghamiz].

either toward a passively reflex reaction [i.e., of change], or toward the absence of it, away from a specific shape.

'Smoothness' is an evenness in the position of the parts of a body, while 'roughness' is an unevenness in the position of the parts of a body, in that some of them are protruding and others are sunken.

On this [basis] then, 'smoothness' and 'roughness' would belong to the category of 'position', unless if we should interpret them as two qualities both derivable from the evenness and unevenness of the 'position' of the parts of a body, for then they would belong to the category of 'quality'.

Baydawi said:

L 194, T 88

2. *Vision sensations*

a) *Colors*. Colors are the most prominent sense perceptions in both their quiddity and in their appearance.

An objection has been raised to the effect that whiteness appears from the intermingling of the air with translucent minute bodies as in snow, crushed crystal, and a fracture line in glass, while blackness [appears] from the density of a body L 195 and the lack of any penetration of light into it.

A reply has been given that that [indeed] may be the reason for the occurrence of both of them.

Also, whiteness is sensately perceived in situations that cannot be understood, as in boiled eggs and magnesia, for after cooking and thickening they both become heavier and denser, and [the sample in hand] dries after becoming white, which is proof of a lack of air within it.

The popular notion is that the original colors are black and white, while the rest are composed from those two. But some say [that the original colors include] also red, green and yellow.

Shaykh Abu 'Ali [Ibn Sina] asserted that the [very] existence of colors is conditioned by light, since we do not have any sense perception of them in darkness. That [lack of sense perception] would be either because of the colors' nonexistence, or because of hindrance from the darkness; the second alternative being invalid because what does not exist [i.e., a light] does not hinder, so the former alternative would be the one designated.⁴⁴

⁴⁴ "Ibn Sina was known primarily as a philosopher and physician, but he con-

An objection to this [assertion] is a question, "Why would it not be admissible that [the presence of] light should be the condition [rather], for the visual perception of [colors], since they are not seen when it is absent?"

Isfahani says:

L 195, T 88, MS 95b

2. *Vision sensations*

a) *Colors*. Among these [sensations] are the primary vision sensations, these being ones that are perceived first and in their essence,⁴⁵ namely, color and light, T 89 the colors being the most prominent sense perceptions, both in their quiddity and in their appearance, that is, in their existence.⁴⁶

The Imam [Abu 'Ali Ibn Sina] said, "Color in its varieties is conceived as a primary concept, and so it is not possible to define it, either by a delimiting definition or a descriptive definition."

The doctrine set forth to the effect that blackness is a structure that holds back vision while whiteness is a structure that distributes vision is a weak one. This is because intelligent people perceive the difference between blackness and whiteness by their intellectual intuition. As for blackness being something that holds back vision while whiteness distributes it, scholars would not form a concept of it except by careful logical reasoning on the basis of knowing [both] blackness and whiteness from experience, and an inductive review of the circumstances of both [colors]. Thus, to define blackness and whiteness by these two [actions] [i.e., holding back light and distributing it] would be to form a definition on the basis of something more obscure.

An objection has been raised that there is no reality at all in any of the colors.

[This is because] whiteness appears from the intermingling of the air with very minute translucent bodies as in snow, and in crushed crystal, and at the fracture line in glass. There is no reason for the

tributed also to the advancement of all the sciences that were accessible in his day: natural history, physics, chemistry, astronomy, mathematics, [and] music." [From En-I-2, v. 3, p. 941, s.v. "Ibn Sina" by A.-M. Goichon.] Baydawi quotes here a statement by Ibn Sina and Isfahani adds a second, both on the subject of light color and its nature. These could not be found in his *al-Isharat wa-al-Tanbihat*.

⁴⁵ In their essence (or, in themselves) [bi-al-dhāt].

⁴⁶ MS gl: i.e., judgmental assent to the fact of their existence [taṣdīq al-wujūd].

whiteness⁴⁷ of snow except that in it there are small icy particles intermingled with the air, and through that [air] the light penetrates. Likewise crushed crystal is seen to be white for that reason, since we know that when hard particles come together they do not react passively to each other, and the fracture line in glass is seen to be white for that reason.

Blackness appears from the dense nature of a body and the lack of any penetration of light into the body's depth.

The truth is that blackness L 196 and whiteness are two real qualities subsisting in a body externally, and what is set forth as the reason for their appearance may be [indeed] the reason for their occurrence externally.

However, this [judgment] is contradicted by the case of the whiteness of a boiled egg. [In this case], the whiteness is observed, but what has been reported about it is not understood. The egg became hard after boiling, and the hardness had not been observed to be in the egg before it was boiled, although the egg was transparent. Thus, an intermingling of air after the boiling would be excluded, because the egg is heavier and [its] heaviness is proof of the absence of any intermingling of air [within it].

Moreover, [that case] is like [the case of] magnesia that is a milk-like medicine obtained from vinegar in which litharge has been heated until it decomposes and precipitates in it and [then the liquid] clarifies until the vinegar stays perfectly clear. The magnesia [precipitated in the mixture] dries⁴⁸ after becoming white,⁴⁹ and its dryness after becoming white is an indication both of the fact that there is very little air in it and of the fact that the earth-like material after becoming white is more than it was before.

The popular notion is that the original colors are black MS 96a and white while the rest of the colors are composed of black and white. There is also a theory that the original colors are black, white, red, yellow and green.

⁴⁷ The MS scribe omitted the following passage then entered it in the margin, with minor variations in syntax and word order. MS: "... not because of the whiteness..."; "... and likewise, the fracture line in glass..."

⁴⁸ MS gl: [From the dried magnesia] there is obtained the white powder [al-bayḍ] women use on their faces.

⁴⁹ Note terms: magnesia [laban al-'adhrā']; litharge [murdāsīn]; precipitates [yanḥall]; becoming white [al-ibyḍāḍ].

Shaykh Abu 'Ali [Ibn Sina] asserted that the very existence of colors is conditioned by light, and that color, when light is absent, is actually nonexistent. Rather, when light is absent, a body is pre-conditioned to receive its specific color after light will have become realized. He argued for this view saying that we do not observe colors in the dark, and the absence of any observation of colors in darkness would be either because the colors are nonexistent, or because of the hindrance of the darkness to observation. The second [alternative] would be invalid because darkness is the nonexistence of light, and what is nonexistent would not be a hindrance. Thus, the first [alternative] is designated.

An objection to this argument would be [to ask] why it would not be admissible [rather], that light should be the condition for the visual perception of the colors; thus, the colors would not be seen when there would be no light on account of the loss of the condition, not on account of hindrance from the darkness.

The truth is that the difference between the colors in accordance with the strength or weakness of the light is known by the fact that a color's reality coming when the light is strong is different from the color's reality coming when the light is weak. This proves that when the light is strong the first color, being different in reality from the second color, would be excluded, and the second color would occur.

Moreover, the degree of commonality between the two differing colors would have no existence in reality, since it would be impossible for a portion of the genus to be real when the difference would disappear. Thus, it may be surmised from this that the light L 197 would be the condition for the [very] existence of color.⁵⁰

Baydawi said:

L 197, T 89

1) *Color strength.*

A corollary [to this] is that sometimes colors are found to be strong when they are pure, and weak when small particles contrary to them are mixed in with them so that the mixture shows no distinction.

⁵⁰ MS gl: Not the condition for its observation.

Isfahani says:

L 197, T 89, MS 96a

1) *Color strength.*

Colors are sometimes found to be strong when they are pure, as is blackness with which no particles of whiteness or other colors are mixed. And sometimes they are found to be weak when small particles contrary to them are mixed in so that the colors are not distinguishable from each other to an observer. It would be as when particles of white would be mixed with particles of black in a mixture in which no distinction could be made to an observer. So then a given black object would be seen as less black than a black object not like [the first]. And since the degrees [of shading] in this mixture would be many, the degrees of strength and weakness of the blackness would be many.

Baydawi said:

L 197, T 89

b) *The nature of light*⁵¹

The various kinds of lights have been held to be transparent bodies each separable from their light source. This is because they are capable of moving about, as is indicated by their descent from the heavenly bodies and by the fact that they are capable of being reflected. Moreover, everything that moves is a body.

The reply [to this theory] is to disallow the minor premise and its inference.

An objection is raised that if they should be bodies that would move in accordance with the requirement of their natures, then they would [all] move in one direction. Also, if they should be bodies and [thus] should be objects of sense perception, then they would conceal what is under them, and the most light would conceal the most, but the actual fact is contrary to that. But if [the bodies] should not be objects of sense perception, then the light would not be perceived.

The theory is also held that light is identical with color; but this is disallowed by [the argument that] it is sometimes sensately per-

⁵¹ [Regarding the term for 'light'] "the works on natural science and cosmology of the Arabs in the best period of the Middle Ages (Ibn al-Haytham [d. 1037], al-Qazwini [d. 1283], and later writers) in the great majority of cases use the term [daw'] . . ." [From En-I-2 s.v. "'nur', 1. Scientific aspects", by W. Hartner.]

ceived when color is not, as with crystal when it is in darkness.

Then [another theory is] that some kinds of light are 'primary'. This [kind] is what comes directly by itself from a source of light. It is called a 'light ray' if it is strong, and a 'light beam' if it is weak.⁵²

And some [kinds of lights] are 'secondary', that is, whatever comes from a light source indirectly by way of something else, as what comes upon the face of the earth at the [predawn] time of T 90 travel departures⁵³ and just after sunset, and from the face of the moon. This is called 'illumination', but [it is called] 'shade' if it comes from the atmosphere that is qualified by it. Nevertheless, we do not perceive it as we perceive shining walls because of its weak color. Moreover, [the light] that glitteringly reflects from [various object] bodies is called a 'gleam'. If [the reflected light] should be directly of itself, then it is called a 'beam', as of the sun, otherwise, it is a 'glitter,' as of a mirror.

'Darkness' is the absence of any illumination from that whose natural function it is to provide light.

Another theory is that [darkness] is a quality which prevents visual perception. But this is disallowed, because if it were such a thing, it would necessarily cause one sitting in the darkness not to see a fire that was lit near him and what was around it. But someone might object that what would hinder [the visual perception] would be the darkness around the object of vision, not around the one who sees.

Isfahani says:

L 197, T 90, MS 96ab

b) *The nature of light*

Scholars have differed as to whether light would be a body or not. Careful investigators⁵⁴ hold the doctrine that light does not constitute a body L 198 but is a quality visibly perceived.

A doctrine has been held⁵⁵ that various kinds of lights are transparent bodies that are separable from the light source. This is because

⁵² Note terms: light ray [ḍiyāʾ]; light beam [shuʿāʾ].

⁵³ [al-iṣfār] MS gl: That is, 'the morning'. I.e., travel departures were scheduled for the time of the predawn sky glow. Sources agree on the spelling; thus, it may not be taken as [al-iṣfār], the 'yellowing' of the sky.

⁵⁴ MS gl: I.e., the Mutakallimun and the 'later' philosophers.

⁵⁵ MS gl: I.e., [by] the 'early' philosophers.

they are capable of moving about, and everything that can move about would be a body, so the lights would be bodies.

The major premise here is clearly proved.⁵⁶ As for the minor premise, it would be true because the various kinds of lights come down from a light source⁵⁷ and are reflected from an object that faces the light source and then shines of itself to something else. And everything that comes down and is reflected is capable of motion-change.

The [first] reply [to this theory] is to reject the minor premise, because we do not grant that the various kinds of lights are capable of motion-change.

[Baydawi's] statement is: "...because they come down and are reflected."

Our [Isfahani's] position is that we do not grant that the light comes down and is reflected. The light occurs in a receiving agent facing [the light source] all at once, but when its occurrence comes from something high or from a source facing it, it immediately seems to the estimation that it has descended and is reflected.

[Another] objection [in reply]⁵⁸ to the reason given earlier, [namely], that if the various lights were bodies capable of motion in accordance with their [various] natures⁵⁹ they would have motion in [only] one direction.⁶⁰ This would be so, because motion in accordance with nature cannot be in two and more directions, as there would be light only from that [one] direction. [In reply we see], however, that that is not so, because there would be light from two and more directions.

Moreover, if lights should be bodies, then if [the bodies] should be perceived by the visual sense, they would conceal what was below them, and whatever gave the most light would conceal the most of what was below it. But the fact is to the contrary, because light does not conceal what is below it, but the more it increases, the more manifest is whatever is below it.

But if [the bodies] should not be sensately perceived, then the light would not be sensately perceived; but this would be impossible, for sense perception contradicts it.

⁵⁶ MS gl: Because it is impossible for accidental qualities to move about.

⁵⁷ MS gl: Like the sun.

⁵⁸ MS gl: I.e., in the second place.

⁵⁹ MS gl: Since [in that case] there would be neither a will nor a compulsion.

⁶⁰ MS gl: Either up or down.

This requires consideration. The fact that a light is sensately perceived does not imply that it would conceal what is below it, since many bodies that are sensately perceived do not conceal what is below them, such as glass and crystal.

It would be preferable to hold that if light should be a body, then the implication would be that there was [either] an interpenetration⁶¹ or, an increase in the size of the body⁶² that would receive the light when the light comes to it. But this [whole] conclusion would be false.

[Another] theory has been held [to the effect] that light is identical with color.

But this is disallowed because sometimes light is perceived without any color, as in the case of crystal when it is in the darkness, for its shining is perceived without color. Moreover, [this would be disallowed] since if the light should be white itself, for example, then MS 97a white would have no commonality with black in the light, just as [white] has no commonality with [black] in its whiteness.

But the conclusion is false, because black and white sometimes do have a commonality in the light in spite of their difference in quiddity.

Then, among the [various kinds of] lights, there is 'primary' light that comes upon a body from a light source directly by itself, as the light upon the face of the earth L 199 after sunrise. It is called a 'ray' if it is strong⁶³ and a 'beam' if it is weak.⁶⁴

Another kind among the lights is 'secondary' light, that comes upon a body from a light source indirectly by way of something else. This is like the light that comes upon the face of the earth at the [predawn] time of travel departures and just after sunset. This [secondary light] had become a light source by way of the atmosphere, which [in turn] had become a light source by way of the sun. It is also like the light that comes upon the face of the earth from the moon.⁶⁵ Secondary light is called 'illumination'; but it is called 'shade' if it falls upon a body from atmosphere that has been qualified by light, that [in turn] became a light source by way of the sun.

⁶¹ MS gl: I.e., an interpenetration of the two space dimensions.

⁶² MS gl: Assuming its non-penetration into the body.

⁶³ MS gl: As in the middle of the day.

⁶⁴ MS gl: As at the first and last of the day.

⁶⁵ MS gl: Light from the moon is a secondary light because it [i.e., the moon] takes its light from the sun.

[Baydawi's] statement, "Nevertheless, it is not perceived"⁶⁶ is a reference to the answer to a supposed interpolation. A full statement of the interpolation would be that if the 'shade' should be 'light', then it would be perceived just as 'light' is perceived [when reflected] from a wall shining from facing the sun, and a full statement of the answer is, that nevertheless the shade would not be perceived as the light [reflected] from a wall shining from facing the sun is perceived, on account of the [comparative] weakness of the 'shade', [which] even if it is 'light', nevertheless it is weak, and weak light would not be perceived [i.e., in the same degree]. [Baydawi's] words, "Because of its weak color",⁶⁷ refers to this [statement of the answer].

The light that glitteringly reflects from bodies is called a 'gleam'. If that gleam is [reflected] directly of itself then it is called a 'beam', as of the sun, but if the gleam is [reflected indirectly and] not of itself, it is called a 'glitter', as of a mirror.⁶⁸

'Darkness' is a term for the absence of 'illumination', i.e., the absence of 'light' from that whose function it is [to provide] light. Something from which light has been excluded is 'dark'; thus, 'darkness' is having no light.

[Another] theory is also held that darkness is a quality that makes visual perception impossible.⁶⁹

But this theory is rejected, because if darkness were a quality preventing visual perception, then it would require that a person sitting in darkness would not see a fire that was lit near him, because of the inherent necessity of the existing darkness that would prevent visual perception. MS 97b But the conclusion is false.

However, an objection might be raised that the darkness surrounding the object of vision would be what would prevent visual perception, not the darkness surrounding the observer.⁷⁰

⁶⁶ Baydawi's verb in the statement had been in the 1st plural active, while Isfahani's verb quote is in the 3rd singular passive.

⁶⁷ MS gl: I.e., the color of the atmosphere [al-hawā']; since the weaker the color the more difficult is the reception [qubūl] of light, and what has no color has no reception at all.

⁶⁸ MS gl: Thus, on that basis the moon does not have 'illumination' [nūr] but it has a 'beam'.

⁶⁹ MS gl: Thus, the opposition between them [i.e., darkness and seeing] would be the opposition of contraries [al-ḥidayn].

⁷⁰ MS gl: The example [just] mentioned includes the observer, so this would be a litigious particularization [takḥṣiṣ al-da'wa].

Baydawi said:

L 199, T 90

3. *Hearing sensations*

The consonant letters⁷¹ are qualities that are applied as accidents to sounds, and thus they are distinguished from one another in 'weight' and 'emphasis'.⁷² They are divided into

- a) 'voiced' [consonants], namely, the 'consonant letters of elongation and quiescence', [i.e., [alif], [wāw], and [yā']], and into
- b) 'unvoiced' [consonants], namely, all the others.⁷³

It is well known that

1) the most frequent cause [sabab] of sound is the wave-motion of air [brought about] by striking [as of a drum] or plucking hard [as of a stringed instrument], T 91 and that

2) the sensate perception of [sound] depends upon the air's wave-motion reaching [into] the ear passage. This is because

aa) [the sound] deviates with the blowing of the wind, and

bb) [the time of hearing a sound] is different from [the time of] observing the cause, as with the blows of an axe, and because

cc) if the end of a reed should be placed upon a person's ear passage and spoken into, no one else would hear.

Furthermore, [it is well known that]

3) sound is sensately perceived externally, otherwise its direction would not be known.

An echo is a sound that comes L 200 as the reflection of the air's wave motion from a mountain or a [large] smooth-surfaced body.

⁷¹ Consonant letters [al-ḥurūf].

⁷² Reading with the second group of sources listed here for the Baydawi text that vary as follows: 1. L and T: [al-thiq wa-al-khiffah]; L adds in the margin: "[wa-al-hiddah] a manuscript variant." 2. MS Garrett 283B, MS Garrett 989Hb, and MS Garrett-Yahuda 3081 all agree: [al-thiq wa-al-hiddah].

Observation: The second group of sources for the Baydawi text reading, 'weight and emphasis,' present terms from different categories, so there would be no redundancy of category. On the other hand the reading of L and T, 'heaviness and lightness,' has both terms as examples from the category of 'weight,' thus showing a redundancy. However, some authors accepted the pair, 'heaviness and lightness,' as sufficient for the discussion.

⁷³ Note terms: voiced consonants [al-muṣawwitah]; consonant letters of elongation and quiescence [ḥurūf al-madd wa-al-lin]; unvoiced consonant letters [al-muṣmatah].

Isfahani says:

L 200, T 91, MS 97b

3. *Hearing sensations*

The objects of hearing are 'sounds' and the 'consonant letters'. Both of these are beyond the need for a definition because their quiddities are very plain.

The consonant letters are qualities⁷⁴ that are applied as accidents to sounds. By these one sound is distinguished from another that has a commonality with it in emphasis and weight,⁷⁵ by making a distinction in what is heard.

In making the last reservation we avoided mentioning any sound [that would be overmuch] 'long' or 'short', and any sound [that would be] 'proper' or 'improper'. Each of these [latter sounds] may have as an accidental quality some structure by which it would be distinguishable from another like it in emphasis and weight.⁷⁶ But there would be no distinction in what is heard, because the [overmuch] 'length' or 'shortness' and the 'properness' or the lack of it are not heard. Regarding the 'length' or 'shortness,' it is because they are both quantitative in nature, and are not auditory. And regarding the 'properness' or the lack of it, it is because they both are natural imprints.⁷⁷ With respect to this quality [of 'properness'], it is preferable to call the sound a consonant letter, but not the quality itself.⁷⁸

a) The 'consonant letters' are divided into 'voiced consonants', these being called in Arabic, 'consonants of elongation and

⁷⁴ MS gl: *L.e., structures and forms* [hay'āt wa-ṣiġhāt].

⁷⁵ The sources used for Isfahani's commentary vary here, as in the Baydawi text: L, T, and the MS: [fī al-khiffah wa-al-thiq]; a gloss in L indicates [al-ḥiddah] as a MS variant for [khiffah].

MS Garrett 989Ha and MS Garrett-Yahuda 4486: [al-ḥiddah wa-al-thiq]. The translation will prefer the latter reading, to agree with that followed in the Baydawi text.

⁷⁶ Sources used vary slightly: L: [fī al-ḥiddah wa-al-thiq], and indicating in a gloss that [al-khiffah] is another MS reading for the first term; [fī al-khiffah wa-al-thiq]. The MS reads: "... by which one would be distinguishable from another in lightness and heaviness"; MS Garrett-Yahuda 4486 and MS Garrett 989Ha read: [fī al-ḥiddah wa-al-thiq]. The significance here is L's shift to [al-ḥiddah] from its previous usages.

⁷⁷ MS glosses: 1. *L.e., both are aesthetic matters* [amrān wijdānīyān]; 2. *Because they would be perceived by aesthetic intuition* [bi-al-wijdān], not [merely] by hearing.

⁷⁸ MS gl: *L.e., the quality itself would not be called a 'consonant letter.'*

quiescence' [i.e., in having no consonantal constriction], namely, [alif], [wāw], and [yāʾ].⁷⁹

1) This is because they are generated by elongating the [mobil] vowels immediately preceding and congenial to them; [that is], the 'A' sound for the alif, the 'U' sound for the wāw, and the 'I' sound for the yāʾ, as in [hā], [hū], and [hī].⁸⁰

2) Moreover, it is not possible to begin [a word] with them in that state [of elongation], because they are then [in their] quiescent [state], and it is not possible to begin with a [letter in its] quiescent [state].

b) Furthermore, [the letters are divided also into] 'unvoiced consonants', which constitute all the others, (that is, all but the consonant letters of elongation and quiescence), like the [tāʾ] and the [ṭāʾ],⁸¹ and the others. And it is possible to begin [a word] with these [consonant letters].

It is well known that

1) the most frequent cause of sound is the wave-motion of the air, by beating [as on a drum] or by hard plucking [as of a stringed instrument]. The 'wave-motion of the air' is not an expression for a transiting motion of one air mass by itself, in that a single air mass itself would carry the sound and move it into the ear passage, but rather, the wave-motion⁸² is an expression for an event that takes place in the air by way of one beat after another [as of a drum], and one silent rest after another [in alternation]. The cause of this wave-motion is the beating MS 98a that is a strong stroke [as of a drum], or the plucking that is a strong division [of the air] [as of a stringed instrument]. The beating and the plucking each make a wave go out in the air until it is inverted with great force on both sides from the distance [i.e., the distant goal] to which the

⁷⁹ L, T, MS Garrett 989Ha and MS Garrett-Yahuda 4486 give these letters 'properly' in the sequence of the Arabic alphabet, i.e., [alif], [wāw], [yāʾ]; the MS alone here uses the sequence of the Farsi-Ottoman alphabet, i.e., [alif], [yāʾ], [wāw], thus showing a slight degree of 'improperness' with respect to correct Arabic sequence. Of the first group, the probable majority are products of the Farsi-Ottoman linguistic milieu, but a concern for the 'properness' of Arabic is evident.

⁸⁰ MS gl: This means that the [alif] was generated from the [fathah], and the [wāw] from the [ḍammah], and the [yāʾ] from the [kasrah].

⁸¹ Reading with T and the MS. Other sources vary—L: [tāʾ] and [ṭāʾ]; MS Garrett 989Ha: [bāʾ] and [zāʾ].

⁸² MS gl: This condition is like the wave-motion of water in a pool when a stone is thrown into its midst.

agent beating or plucking it had sent it. The implication from this⁸³ is that the air at a distance from [the inversion force] is compliantly receptive⁸⁴ to the configuration and wave-motion that come upon it there, while the [action of] beating and plucking, that is the cause of the wave-motion that [in turn] is the proximate cause of the sound, is conditioned by the resistance [to the action], not by any hardness [of air or water]. For beating upon water with something [as a rod] will occasion sound without there being any hardness, and trying to pluck something L 201 from [a ball of] cotton would not be to produce sound, on account of the absence of any resistance [from the cotton].

Also it is well known that

2) sensate perception of sound depends upon air that has wave-motion and carries the sound reaching into the ear passage. This is because the voice of a muezzin on a minaret [calling believers to the prayer rite], will incline from side to side when the wind is blowing, and because one's sense-perception of a sound sometimes will vary [by an interval] from [the moment of] observing its cause, as with the stroke of an axe, for when we see from afar one who strikes his axe upon wood, we see the stroke before we hear the sound, and because if anyone takes a long [hollow] tube and places one of its ends upon his mouth and the other end upon the ear passage of a person and speaks into it with a loud voice, that person will hear him, while no one else will hear him.⁸⁵

It is well known, further, that

3) sound is something sensately perceived externally, that is, it is present in the wave-motion of the air external to the ear passage.

The theory has been held that sound has no existence in the vibrating air external to the ear passage, but rather, the sound occurs only in one's hearing from contact with the vibrating air when it reaches the ear passage. But this [theory] is refuted by the fact that if it should be so then we would not know its direction. It would be just as when we would not perceive a tangible object unless it

⁸³ MS gl: [I.e.], the inversion.

⁸⁴ MS gl: I.e., [the] receptivity [qābiliyah].

⁸⁵ MS gl: Because the [vibrating] air reaches only his ear, not the ear of anyone else.

should touch us; we do not perceive by the touch [alone] from which direction the tangible object has reached us.

An echo is a sound that comes from the reflection of air in wave-motion from a mountain or some [large] smooth-surfaced body. Indeed, when air MS 98b that is in wave-motion is impacted by some obstacle like a mountain or smooth wall, in such a way that this air in wave-motion is bounced back while yet keeping within it the structure of the original air wave, a second sound originates from that [impaction], and that is the echo.

Baydawi said:

L 201, T 91

4. *Taste sensations*

A body [of material for food] will be either coarse or fine or medium, and the agency that will act upon it will be either heat or cold or something temperate between the two.

a) Heat will produce

- 1) in coarse material 'bitterness', and
- 2) in the fine 'sharp acidity', and
- 3) in what is medium [coarse] 'saltiness'.

b) Cold [will produce]

- 4) in coarse material 'a sharp astringency', and
- 5) in fine material 'sourness', and
- 6) in what is medium [coarse] an 'astringency'.

c) Medium [heat will produce]

- 7) in coarse material 'sweetness'; and
- 8) in fine material [the taste of] a 'fatty substance', and
- 9) in medium [coarse material] a 'flatness of taste'.

Sometimes 'insipidity' is applied to what has no taste, or whose taste is not perceived, as that of brass. Nothing is dissolved from it, on account of its great density, that would blend to the tongue and thus be sensately perceived.

And sometimes two tastes will join together, as [for instance] bitterness and astringency in boxthorn [*Lycium*], [a taste] called 'nauseous', and [as for instance] bitterness and saltiness, in wormwood⁸⁶ T 92 [a taste] called 'brackish'.⁸⁷

⁸⁶ The MS and MS Garrett 989Ha, in the commentary, give the correct spelling. Here, L & T vary: L: shikhah; T: sabkhah = salt marsh, green water-moss.

⁸⁷ These terms are mainly drawn from dictionaries, using Wehr's 3rd ed. and Hava:

Isfahani says:

L 201, T 92, MS 98b

4. *Taste sensations*

[Of the various food tastes] there are nine⁸⁸ with respect to the recipient [food material] and the causative agency. L 202 Indeed, a food taste will have a body [of food material] that carries it⁸⁹ which is either fine or coarse or medial between fineness and coarseness. And food taste will have an agency [i.e., acting upon the taste] that will be either heat or cold or something temperate between heat and cold.

- a) Thus, heat produces
 - 1) in what is coarse a bitterness, and
 - 2) in what is fine a sharp acidity, and
 - 3) in what is medium [coarse] a saltiness.
- b) Cold produces
 - 4) in coarse material a sharp astringency,⁹⁰ and
 - 5) in fine material a sourness,⁹¹ and
 - 6) in what is medium [coarse] an astringency.
- c) Medium heat produces
 - 7) in coarse material a sweetness, and
 - 8) in fine material [the taste of] a fatty substance, and
 - 9) in medium [coarse material] a flatness of taste.

'Tastelessness' is used in two different meanings: the first of them being that which really has no taste, while the second is that which really has taste, but its taste is not sensately perceived because of its extremely dense coarseness. Nothing dissolves from [the second] that mingles with the tongue, so there is no perception of its taste, as with brass and iron. Nothing dissolves from [either of] these that

1. bitterness [marārah]; 2. sharp acidity [ḥarāfah]; 3. saltiness [mulūḥah]; 4. sharp astringency ['ufūṣah]; 5. sourness [ḥumūḍah]; 6. astringency [qabḍ]; 7. sweetness [ḥalāwah]; 8. a fatty substance [dusūmah]; 9. flat of taste [tafāhah]; 10. bitterness & astringency [al-bashā'ah] of boxthorn [al-ḥuḍaḍ]; 11. bitterness & saltiness [al-zu'ūqah] of wormwood [al-shūbah].

⁸⁸ MS gl: I.e., Of [the food tastes] the simple ones [basāyituhā] are nine.

⁸⁹ MS gl: I.e., the recipient [al-qābil] [of it].

⁹⁰ MS gl: Understand that astringency [qabḍ] and sharp astringency [MS orthography: 'ufūḍah] are closely related, the difference being that the astringent constricts [yaqbuḍ] the surface of the tongue, while sharp astringency constricts both the surface of the tongue and its interior together.

⁹¹ MS: [khumūḍah].

would mix with the tongue and be perceived, because of the extremely dense coarseness, but then if [this sample] should be changed in the dissolution and refinement of its parts a taste would be perceived from it. The 'tastelessness' in this [second] sense is reckoned as a [real] taste, but not so the first [sense, that has no taste].

Understand that individual tastes constitute these nine. Sometimes there are joined in one [taste-bearing] body two tastes or more, and so another than these nine would be perceived. The joining together of two tastes would be like the mixing together

(10.) of bitterness and astringency of the boxthorn [Ly-cium], [a taste] called 'nauseous'. The boxthorn⁹² is a medicine, being a species of the prickly saltwort [Salsola kali]. [And such a joining would be] like the mixing together

(11.) of bitterness and saltiness in wormwood, [a taste] called 'brackish'.⁹³ The joining together of more [than two tastes] would be like the mixing together of bitterness, sharp acidity and astringency in the eggplant.

Baydawi said:

L 202, T 92

5. *Smell sensations*

The odors that are agreeable to one's temperament are called 'fragrant', and those that are disagreeable to it [are called] 'putrid'. Sometimes an odor is called sweet or [sometimes] sour⁹⁴ in view of what accompanies it. The various kinds of odors do not have specific names. The reason for the sensate perception of these [odors] is the arrival in the nose of air that has been qualified by [one of them]. Another theory is [that the reason for the sensate perception of odors is the coming to the nose of air] mixed with a fine particle dissolved from that which possesses the odor.

⁹² The scribes show uncertainty of the orthography here: L reads [khā'] instead of [hā']; the MS reverses the vowels in [ḥuḍaḍ] but correctly describes their order.

⁹³ MS gl: One says that the taste is intolerably brackish [ta'ām maz'ūq], when it is overly salted.

⁹⁴ [hāmiḍah]; L: [khāmiḍah].

Isfahani says:

L 202, T 92, MS 98b

5. *Smell sensations*

The smell sensations are constituted MS 99a by odors perceived by the sense of smell. There are no names for their various kinds except from the viewpoint of their being agreeable or disagreeable. For the odors that are agreeable to one's temperament are called 'fragrant', those disagreeable to one's temperament are called 'putrid'. Sometimes a name will be derived from food tastes closely associated with the odors, and people will say L 203 that it is a sweet odor or a sour odor⁹⁵ in view of a closely associated food taste. The reason for the sensate perception of an odor is the coming to the nose of air that is qualified by the odor. Another theory is that the reason for the sensate perception of the odor is the coming to the nose of air mixed with a fine particle dissolved from that which possesses the odor. But this is improbable, for it is impossible for particles of a small bit of musk to produce an odor that would spread to many places, each sample of which would be like the odor perceived at first.

Baydawi said:

L 203, T 92

2. *Psychic qualities*

The psychic qualities comprise the 'living nature' [or, 'life'], 'health and illness', and 'perception', and [other basic qualities] upon which 'actions' depend, as 'power and will'. [Qualities] that are permanent are called a 'habitual nature', while the ones that are not such are called a 'condition'.

The living nature [and its absence]

a. The living animate nature is a power that conforms to what is normal to the species, and the rest of the powers issue from it.

1. The Physician-Philosopher [Ibn Sina] reasoned that [the living animate nature] was distinct from the two powers of sensate perception and nourishment taking [from the fact] that a body member

⁹⁵ The MS and L read: [khāmiḍah].

of a paralytic would be alive but not sensitive [to stimuli], while a withered body member would be alive but not taking nourishment; but plants are the reverse [of the latter]. But this [inference by Ibn Sina] has been disallowed

a) on the basis that the absence of an 'action' does not imply the absence of a 'power', because admissibly some hindrance might prevent [the power] from [an action]. Let no one say that the 'power' is what causes an 'action', because, if that should be granted, then it would imply that the term 'power' should not be applied in [a given case] because of the absence of any 'action'. Moreover, [Ibn Sina's inference is disallowed]

b) on the basis that nourishment taking by plants is different in its essence from nourishment taking by living animate beings.

2. The philosophers and the Mu'tazilah posited a physical constitution as the condition [for a living nature]. This [theory] has been disallowed on the basis that if [the living nature] should subsist in the totality [of a physical constitution], and if [the living nature] should be a single unity, then one entity would be inhering in a plurality of substrates, while if [the living nature itself] should be a plurality, then every single [unit of the living nature] would be conditioned upon another. This requires consideration.

b. 'Death' is the absence of the 'living animate nature' from something whose function it is to have it. There is another theory that [death] is a quality that is the opposite of life, in accordance with the word of [God]: "[God] created both death and life." [Q 67:2]

Now, "nonexistence" would not be [something] created, and [so] this [theory] has been disallowed on the basis that the meaning of "creation" [here] is a "fulfilling of a [divine] particular decree."

Isfahani says:

L 203, T 92, MS 99a

2. *Psychic qualities*

Comprised among the psychic [accidental] qualities are the 'living nature' [or, 'life'], 'health and illness', and 'perception', and [other qualities] upon which 'actions' are dependent, as 'power and will'. Psychic qualities that are permanent are called a 'habitual nature', and those not such, that is, not 'permanent,' are called [a] 'condition'.

The difference between a 'habitual nature' and a 'condition' is due to separable accidental qualities,⁹⁶ as 'permanence' and its absence. This is because when a psychic quality first occurs, it is called a 'condition,' L 204 then it will itself become a 'habitual nature'; but things that differ [from one another] on account of specific 'differentia' cannot possibly be inverted one into another.

The presentation of the psychic qualities is in five subtopics:

1. The living nature [and its absence]; 2. Perception [and knowledge]; 3. Power and will; 4. Pleasure and pain; T 93 5. Health and illness.⁹⁷

The living nature [and its absence] L 204:4, T 93:1, MS 99a:16

a. The 'living nature' [or, 'life'] is a power that conforms to what is normal to the species,⁹⁸ and all the rest of the powers of living animate beings issue from it. What is meant by 'normal to the species' is that for a given species there will be one constitution that is the most appropriate of all the constitutions relating to it. Moreover, the 'living nature' may be descriptively defined as a power that implicitly requires [the powers of] 'sensate perception' and 'motion-change' as conditions for the normality of the constitution [of any living being].

1. The Physician-Philosopher Abu 'Ali [Ibn Sina] reasoned⁹⁹ that the living nature was distinct from the two powers of 'sensate perception' MS 99b and 'nourishment taking' because a body member that is paralyzed is alive, because if it should not be alive then it would decay and suffer corruption; moreover, it would not have any sensate awareness; therefore, the 'living nature' is something other than the 'power of sensate perception.' Furthermore, a withered body member is alive, but it does not take nourishment, necessarily so because of its being withered. [On the other hand,] plants take nourishment but theirs is not a living animate nature.

⁹⁶ MS gl: Permanence is an accident of 'habitual nature,' and its absence is an accident of 'condition'; thus, the difference between them is on account of accidental qualities, not 'specific differentia.'

⁹⁷ Considering the subject matter actually discussed, the list is of five paired topics.

⁹⁸ 'Normal to the species' [al-i'tidāl al-naw'i].

⁹⁹ L gl: His expression, "The Physician-Philosopher reasoned": Our primary master [al-ra'īs] [Ibn Sina] mentions this inference in [his book] the *Qanun*. [From al-Sayyid al-Sharīf al-Jurjānī's glosses on Isfahānī's commentary here. The statement is also attributed to Ibn Sina in F.D. Rāzī's *Muhassal*, p. 98, Cairo, 1323 ed.]

Thus, the 'living nature' does exist apart from the power of 'nourishment taking', and the power of nourishment taking does exist apart from the living nature, so the 'living nature' is something other than the power of 'nourishment taking'.

1.-a1. But the argument of Shaykh [Ibn Sina] is disallowed¹⁰⁰ because

a) we do not grant that the 'living nature' would be something other than the 'power of sensate perception' and the 'power of nourishment taking'.¹⁰¹

[Baydawi's] statement is that the paralyzed body member is live but is not sensitive [to stimuli], while the withered body member is live but does not take nutrition.

Our position is that the absence of sensate perception and the absence of any nourishment taking do not logically require the absence of any power of sensate perception or power of nourishment taking. It is admissible that the power of sensate perception and the power of nourishment taking should exist, while some hindrance would prevent them from [being active in] sensate perception and in nourishment taking.

Let no one say that the 'power' is what causes an 'action',¹⁰² as in that case the two powers of 'sensate perception' and 'nourishment taking' by logical necessity would not be present in the paralyzed body member or the withered body member since their causation of action was absent.

Our [Isfahani's] position is that we do not grant that 'power'¹⁰³ is what causes an 'action,' but rather [that] 'power' is the basic principle¹⁰⁴ of the 'action', [this role being] more inclusive than causing an action in the first place. Moreover, if it should be granted that 'power' would be the term for what causes an 'action', then

1) the implication would be that the term 'power' would not be applied to that [other] entity whose function it is to cause,¹⁰⁵ although it is not actually causing the 'action'; but from the latter fact [i.e., that it is not actually causing the action]

¹⁰⁰ MS gl: The one disallowing it is the Imam [Fakhr al-Din al-Razi]. [The discussion is in Razi's *Muhassal*, p. 98 of Cairo, 1323 A.H. ed.]

¹⁰¹ The MS has omitted the clause, "because we do not grant."

¹⁰² Reading with the MS, MS Garrett 989Ha, and MS Garrett-Yahuda 4486. L and T both insert here, [lā bi-al-qūwah].

¹⁰³ The MS inserts here, [ibārah 'anmā] "a term for what . . ."

¹⁰⁴ MS gl: I.e., the validity of the action [ṣalāhiyat al-fi'l].

¹⁰⁵ The MS inserts here [bi-al-fi'l], but the sense is clear without the insertion.

2) the implication would not be that that [other] entity¹⁰⁶ would be absent.

1.-a2. Furthermore, [the argument of Ibn Sina] is disallowed because

b) the nourishment taking of plants contrasts with the nourishment taking of animate living beings both in reality and in essence. Thus, the [fact that] the nourishment taking of plants is something distinct from [their] living nature does not imply that the nourishment taking of animate living beings is something distinct from [their] living nature. L 205

2. The philosophers and the Mu'tazilah had posited a healthy physical constitution as the condition for [a living nature]. But the rest of the Mutakallimun disagreed with them, holding that a physical constitution is not a precondition for the 'living nature'.¹⁰⁷ As used by the philosophers, the 'physical constitution' is a term for a body composed of the four elements in such a way that there results from their combination a blended temperament, that is the condition for a living nature.

3. As used by the Mutakallimun,¹⁰⁸ the 'physical constitution' is a term MS 100a for a [minimum] total of individual atoms, [and] from less than [this minimum total] a living being could not possibly [be composed].¹⁰⁹

(2.) The philosophers [also] hold that a living nature is conditional upon there being a normally balanced blended temperament and a spirit, this latter being constituted of fine bodies generated from the vapor of the blended elements flowing in the blood vessels that spring from the heart, namely, those called the 'arteries', and [further], a normally balanced 'blended temperament' and a 'spirit' will not become a reality unless there is a physical constitution.

2.-a. However, the theory that a 'living nature' is conditioned upon there being a physical constitution was disallowed, and the argument disallowing that the living nature would be conditioned upon a physical constitution is that

¹⁰⁶ MS gl: Namely, 'the power'.

¹⁰⁷ MS gl: Understand that the Asha'irah all agree that a healthy constitution would not be a condition for the existence of a living nature, since with them it would be admissible for God Most High to create life in a single atom.

¹⁰⁸ MS gl: I.e., [of] the Mu'tazilah.

¹⁰⁹ MS gl: That is, the composition of a living being [ḥayawān] would not be possible with less than those atoms. That is because they do not admit [the possibility of] the living nature subsisting in a single atom.

a) if the living nature should subsist in the total number of parts of the physical constitution, and if the living nature [itself] should be a single unit, then [it would be a case of] a single accidental quality [i.e., the living nature] inhering in multiple substrates, which would be impossible. Furthermore,

b) if the living nature should be a plurality, that is, if in each atom of the physical constitution separately there should be a living nature, then the subsistence of each single unit of the [living nature] would be conditional upon the subsistence of every other unit [of it] in some other atom.

1) If the case should be otherwise, then [still] a healthy physical constitution would not be a condition for the living nature. But,

2) if the condition should be as described, then a circular argument would be implicit, and that would be impossible. But this requires consideration, because a single [unit of] living nature subsists in the totality of [body] parts, a [single] totality, and this does not imply that a single accidental quality would be inhering in multiple substrates.

b. 'Death' is the absence of the living nature from something whose function it is to have it; although it is better to say that [death] is the absence of the living nature from that [situation] in which the living nature is [normally] found, the opposition between these two [cases] being an opposition between 'deprivation' and 'possession'.

Another theory is that death is a quality in opposition to the living nature, in accordance with the word of God Most High, "[God] created both death and life." [Q 67:2] However, 'nonexistence' not being a created entity, this theory was disallowed because the meaning of 'creation' [here] is that it is the fulfilling of a [divine] particular decree. But this [fulfilling] need not consist of something having existence, since what is 'nonexistent' also [results from] the fulfilling of a particular decree.

Baydawi said:

L 205, T 93

Perception and knowledge

a. [Perception.] 'Perceptions' are either

1. plainly external, as is 'sensate perception' by the five external senses, or

2. [they are mental and] internal, these latter being divided into

a) 'concept formations' and
 b) 'judgmental assents' [i.e., to the concepts being formed;
 then [the judgmental assents] become knowledge].

b. [Knowledge.]

1. *Concept formation*¹¹⁰ is the [present] existence of the 'form' of the 'intelligible object of knowledge' within the 'knower'. What indicates the existence of this 'form' within the [knower's] intellect is

a) that we form a concept of a nonexistent entity, and
 b) that we make it distinct from anything else, a distinction that will not be realized until after it has become an established certainty. It is not something in external [reality], for it is in the mind.

An objection to this [doctrine] is raised with the argument that it would require the mind to be hot [and] cold [and] straight [and] round simultaneously when conceiving these qualities.

[In reply to this objection it can be said], the truth is that if¹¹¹ [the objecting philosophers] should intend by the [term] 'form' something like a reflected image in a mirror, then that [sense] would bear [what is meant].¹¹² But if they should mean something that would have a commonality with the external in all of its quiddity, then that would be [an] invalid [meaning], because [the 'form'] is an accidental quality, while the [intelligible] object of the 'concept being formed' might be a substance. Moreover, sometimes an entity will form a conception of itself, so if its own image should occur within [a material entity], then the implication would be that two like images were joined together.

Let no one say that a 'thinking person' and an 'intelligible object' would be one entity, because the thinking person is the one who brings up before himself something that is other than himself, and

¹¹⁰ At this point, without explanation, Baydawi himself by inadvertence, [or, the original editors of his text] had reversed his usual presentation sequence, i.e., the standard sequence, namely, first *concept formation*, then *judgmental assent*. Isfahani attempted an explanation in his Commentary at this point, but he is not sure why this was done. Therefore, seeing that the unaccountable reversal of sequence in Baydawi's text would result only in confusion and that no meaningful advantage would be gained, as the Editor we have changed the two text blocks to the standard sequence of presentation, as follows: in Baydawi's original text—

[Tasawwur block L 206:1–9, & T 93:31–T 94:1] is placed ahead of

[Tasdiq block L 205:20–L 206:1, & T 93:29–31].

¹¹¹ L omits "if."

¹¹² Reading with Garrett 283B and Garrett 989Hb, the latter clearly vowelising it [muḥtamil] as an active participle of Form 8 while L uses Form 5; T reads [ṣahīḥ] as a clearer paraphrase.

also because it would be impossible for something to appear T 94 before its own presence.

2. *Judgmental assent*¹¹³ is either

- a) 'firmly convinced', or
- b) it is not.

(a) The first alternative above, [firmly convinced judgmental assent], is due either

- 1) to a factor of [logical] necessity, or
- 2) it is not, the latter [case] being [conviction due to] 'authoritative tradition'.

(1) In the former alternative here, what is linked [to the conviction] is either

- aa) 'open to contradiction' somehow, this being 'belief', or
- bb) it is not [open to contradiction], this being 'knowledge'.

(b) The second alternative above [not firmly convinced judgmental assent] is either [a case of]

- 1) two equal terms, which is [called] 'doubt', or,
- 2) two not equal terms, [in this case]
 - aa) the probable one is [called] a 'surmise', L 206

and

- bb) the less probable one is [called] an 'estimation' [or, guess].

Another theory [of perception and knowledge] is to the effect that [since] there is a specific linkage between a knowing person and an intelligible object, [this individual linkage] would be multiplied accordingly as the intelligible objects would multiply, and it would take shape accordingly as the [knowing] entity would give thought to itself.

Another theory is to the effect that [the special linkage between knower and intelligible object] is an attribute that necessarily brings about erudition, which is a state having a linkage with the intelligible object. On this basis, it would not be multiplied accordingly as intelligible objects would multiply.

¹¹³ N.b.: The text blocks for 'Tasawwur' and for 'Tasdiq' in Baydawi's presentation are here restored to the standard sequence. Baydawi himself had unexplainably reversed them from his usual practice. See also the note at the same point in Isfahani's commentary.

Isfahani says:

L 206, T 94, MS 100a

Perception and knowledge

a. [Perception. In this second subtopic under the ‘psychic qualities’ the term] ‘perception’ need not be defined¹¹⁴ because it is one of the psychic intuitions, and these psychic intuitions themselves are present within the rational soul.

b. [Knowledge.]

1. *Concept formation.* When the ‘real nature of a thing’ is [directly] present [to the internal powers of] the rational soul [that presence] is a more effective way to form a concept MS 100b [of the thing] than [merely] for its ‘likeness and image’ to be present [indirectly to the rational soul]. So for this reason, psychic attributes and psychic intuitions [operating directly on a present thing] are more effective in the formation of a concept than are entities external to [and present indirectly to] the psyche. Indeed, forming a concept of the psychic attributes takes place when their ‘real nature’ is present, while forming a concept of entities external to the psyche takes place when an ‘image of them’ is present.¹¹⁵

¹¹⁴ L 206 gl: [The present commentator], Shams [al-Din Mahmud] Isfahani, in his commentary on Nasir al-Din Tusi’s *al-Tajrid* has stated in this regard: “The [term] ‘perception’ is used in two senses with two different technical applications [bi-istilāḥayn]:

(1) The first is that “the real nature of a thing is present” in itself or in its image before the perceiver [this is Ibn Sina’s definition]. The observer of it is that agent by which it is perceived, equally whether the agent by which perception takes place is the perceiver himself or is his instrument, and equally whether the image is detached from some external matter or is present itself from the first, and equally whether it is imprinted upon the perceiver himself or on his instrument, or whether it is present without being imprinted in anything.

(2) The second [meaning] is “sensate perception” only. Furthermore, “knowledge” is an expression for the occurrence of an intelligible’s form within the knower, so knowledge is a species of perception according to the first technical application, which is the “thought process” [al-ta’aqqul]. On the basis of this [first technical application], perception is distinguished from knowledge as the genus and the species are mutually distinguished. On the basis of the second technical application, perception is differentiated from knowledge, so it is distinguished from knowledge as two species are mutually distinguished. That is, the two species are subsumed under one genus; and that accords with the fact that both are subsumed under “perception” according to the first sense.

¹¹⁵ Note terms: when their real nature is present [bi-ḥuṣūl ḥaqīqatihā]; when an image of them is present [bi-ḥuṣūl mithālihā]. The scribe of L miswrote a [fa’] instead of [lām] in [mithālihā] as in T and the MS.

2. *Judgmental assent.*

a) Truth¹¹⁶ in an intuition¹¹⁷ about a conception consists of

1) the truth of an obvious conclusion,¹¹⁸ that by its truth obtains the intellect's prompt decision to accept

2) the truth of the premise [as well], as soon as it forms a [joint] concept of both the conclusion and the premise together.

Indeed, the truth of what is intuitive about a concept would be neither the truth of some [objective] essence, nor the truth of some accidental quality [capable of] providing a distinction,¹¹⁹ nor the truth of some conclusion reached by way of an intermediate factor. For indeed, if a conception has been spontaneously formed of some entity, then the implication—deriving both from the conception of [the entity] and from the conception of what 'intuitive' means—would be that the intellect would promptly accept the fact that [the conception formed] was by intuition and without any need for an intermediate factor, and thus, [a quick intellect] would not have to wait for a [full] demonstration of proof, but rather, it sometimes has need¹²⁰ [only] for [factual] information.

b) Factual information 1) When being given.

Now, the [power of] estimation is a serious challenge to the intellect, turning it aside from its required role so that disturbances result in the intellect's thinking processes on account of it. Thus, [the intellect] has need for [factual] information in order to become free from the murky confusion of L 207 [doubtful] estimations [and arrive] at clarity of thinking. What has been set forth¹²¹ is by way of information. If it should be [put] in the form of a proof demonstration,¹²²

¹¹⁶ MS gl: This is the answer to an assumed question, the assumption being that someone would say, "We have granted that perception is intuitive, but its spontaneity is not intuitive."

¹¹⁷ MS gl: The intended meaning here is "what the intuitional factor has assented to as true."

¹¹⁸ MS gl: In the more general sense.

Jurjani's *Ta'rifat*, Fluegel's ed., p. 199, defines the 'more general' sense of an 'obvious conclusion' as that where a concluding proposition together with its premise is enough to convince the mind of their necessary relationship.

¹¹⁹ MS gl: Otherwise, it would imply that a separating distinction would be made [between] something intuitive and something [else] intuitive.

¹²⁰ L has omitted [qad] preceding the verb.

¹²¹ MS gl: That is, [Isfahani's] opening statement, ["The term 'perception' need not be defined] because it is one of the psychic intuitions."

¹²² Since it includes two premises as a proof demonstration does.

it would not be possible to contradict it nor to raise an objection against it.

Sometimes the power to give information is inadequate to introduce the information in the right way, for that depends upon the power to explain that one has either by natural endowment or by acquisition [of skill].

[Factual information] 2) When being received.

And sometimes [one's] understanding of what is given in information¹²³ is inadequate for comprehending what is meant by the information given, so [the topic] is shifted¹²⁴ to another information [opportunity], in order that it might be [better] communicated; unless [one's understanding] is absolutely inadequate, then it must be dropped,¹²⁵ for "Everyone is easily amenable to that for which he was created."¹²⁶

¹²³ MS gl: In relation to what is spoken.

¹²⁴ L and T: [fa-yantaqil ila' tanbih ākhar]. MS and MS Garrett 989Ha: [fa-yunqal ila' ākhar], with two glosses in the MS: 1. [tanbih ākhar]; 2. Lc., the one giving the announcement moves to a clearer way [of giving the information] than at first.

¹²⁵ MS gl: Lc., abandoned.

¹²⁶ L 207:5 "[Kullun muyassarun li-mā khuliqa lahu]"—This quotation was used by the Prophet Muhammad, as noted in *Sunan Abu Dawūd* (Kitab al-Sunnah, #4709). It was not original with the Prophet, as no formula eulogizing the Prophet precedes it, neither in the Hadith, nor in Ibn Sina's use of it as a caustic aside to students, nor in Isfahani's usage parallel to that of Ibn Sina, nor in Baydawi's and Isfahani's quote of it as a point in an argument of the Asha'irah [See Book 3, Section 2, Topic 4b, (L 450:13, 15), and the note at that point]. In the Hadith reference the Prophet uses it in the context of the 'latency' and 'appearance' of individual character traits which are not perceived with clarity. The Asha'irah usage (at L 450) parallels that in the Hadith. Isfahani at this point in his commentary on Baydawi is drawing upon Ibn Sina, and his usage parallels that of Ibn Sina in commenting on the limited mental capacities of misguided but determined would-be scholars. Ibn Sina here uses it in concluding vol. 1, the Logic section, of his *al-Isharat wa-al-Tanbihat* [1:320]. The Hadith context of the "latency and appearance" of character traits is illuminated by reference to J. van Ess' article "kumūn" in *En-I-2*.

A modern translator of this Logic section quotes the proverb both in his own introductory summary and also in its place at the conclusion of the translated text: p. 43-. "For whatever one is fit for, one can do with ease"; p. 160-. "Everyone is directed with facility toward that for which one was created." [Avicenna/Ibn Sina, *Remarks and Admonitions, Part I: Logic*. Tr. by Shams Inati. Toronto: Pontifical Institute of Mediaeval Studies, [c. 1984].] There is a sharply cutting judgment of character in this saying, but the cutting edge provided for it cannot give pain in the translation cited here. We surmise that it was a proverb current in the speech of Muhammad's day, possibly deriving from Hellenistic philosophy of the Stoic tradition. The proverb deserves more extended research.

[Isfahani continues:]

L 297:5; T 94:15; MS 100b:14

Ibn Sina's theory of perception

In [his] *al-Isharat [wa-al-Tanbihat]*,¹²⁷ Shaykh [Ibn Sina] defined 'perception' thus: "The perception of an entity consists in the fact that its real nature is represented¹²⁸ to the perceiver, [and] the observer [of this real nature] is that agency [equally either directly or by instrument] by which it is perceived."¹²⁹

This is a definition of 'perception' in accordance with [its] etymology, and on that account [Ibn Sina] did not hesitate to bring the 'perceiver' into it. But the use of something derived in defining that from which the derivation is taken does not imply that it is a case of 'definition by something more obscure.' This is because the determination of the factor indicated by [the word] 'perception' is through an entity that belongs specifically to [the perception], and does not include all the other psychic attributes. This factor represents reality on the basis of [direct] observation, and the determination of [what] 'perception' [refers to] is not through mentioning the 'perceiver,' so there is no implication that it is a 'definition by something more obscure.'

This definition is a determination of the causal factor named 'perception' that MS 101a has commonality with the 'thinking process', [which includes] 'estimation', 'imagination', and 'sensate perception'.

The entity perceived [then] would be either

- a. the perceiver himself, or
- b. something else, that 'something else' being either
 1. not external to [the perceiver],¹³⁰ or
 2. external to [the perceiver], and if external, it is either
 - a) material¹³¹ or
 - b) immaterial.¹³² So, these are four divisions.¹³³

¹²⁷ Vol. 2, pp. 308–312, Teheran, 1453, with Nasir al-Din al-Tusi's commentary and Quth al-Din al-Razi's glosses.

¹²⁸ MS gl: I.e., is present in itself.

¹²⁹ MS gl: I.e., because of [this process of perception] the perceiver perceives the object perceived.

¹³⁰ MS gl: As our perception of our own knowledge of our [physical] pains [wuju'inā].

¹³¹ MS gl: As our perception of a body or something corporeal.

¹³² MS gl: As our perception of intellects and souls.

¹³³ From the succeeding context, presumably these would be the divisions at a., and b., a), and b).

Perception of the first two of them [i.e., a. and b.] would be by the real nature [of each] occurring to the perceiver, the first being without any inherence¹³⁴ [brought from outside], and the second by [its] inherence [i.e., within the perceiver].

The perception of the last two¹³⁵ [i.e., a) and b)] would be not by obtaining the external reality itself, but by obtaining the image of the reality, equally whether the perception benefits from the external reality or whether the external reality benefits¹³⁶ from the perception. Perception of the third¹³⁷ is by obtaining a form¹³⁸ separated and abstracted from matter. The fourth¹³⁹ does not need to be detached from matter, necessarily so, because it is not material.

[Ibn Sina's] statement that [the perception of a thing] consists in "its real nature being represented before the perceiver",¹⁴⁰ applies to all [of these].¹⁴¹ One says that [a given object] has been represented in a given way¹⁴² before a given person, when it is present directly before him¹⁴³ either in itself or by its image. Thus, being 'present in itself' applies to the first two [alternatives above], and being '[present] by its image' applies to the last two. And his statement [that the representation would be] 'before him,'¹⁴⁴ is more general than for it to be by inherence [either] within him,¹⁴⁵ or in an instrument of his, or without any inherence. Thus, to be 'present before the perceiver' includes [all of] them.¹⁴⁶

Moreover, 'perception' has two adjunctive relationships as accidental qualities: one of them being with the 'agency having the perception' [i.e., the 'perceiver'], and the other being with the 'object

¹³⁴ MS gl: Because what is perceived would be the perceiver himself.

¹³⁵ MS gl: I.e., the material and the immaterial.

¹³⁶ MS gl: For example, the bed that exists externally benefits from the perception, for the carpenter first conceives it then makes it.

¹³⁷ MS gl: I.e., the material.

¹³⁸ MS gl: In the material.

¹³⁹ MS gl: I.e., the immaterial.

¹⁴⁰ *Isharat*, v. 2, p. 308.

¹⁴¹ MS gl: I.e., the four classes mentioned.

¹⁴² MS gl: This is the etymological meaning of representation; otherwise, the technical meaning would not include representation by means of an image. They say that knowledge is of two kinds, the 'representational' [*huḍūri*] that is present in itself, and the 'imprinted' [*inṭibā'i*] that is present through something else, that is, by its 'form.'

¹⁴³ MS gl: I.e., before the perceiver.

¹⁴⁴ MS gl: I.e., Before the perceiver.

The statement is at *Isharat*, v. 2, p. 310.

¹⁴⁵ MS gl: As [in the case of] the universals.

¹⁴⁶ MS gl: The four classes.

of the perception'.¹⁴⁷ On that account, [perception] is made an accidental quality [to each of them] as each is mentioned in the definition. And since each is qualified by the adjunctive relationship, L 208 [the result is that] the object perceived and the perceiver are related to each other as being mutual adjunctions.¹⁴⁸

a. [In this philosopher's scheme] perception is classified into

1. perception not by means of an instrument, in that the perceiver perceives by himself, and

2. perception by means of an instrument.¹⁴⁹

b. In order to call attention to both classes [Ibn Sina] made this statement: "... The observer [of this real nature] being that agency by which it is perceived." Thus, if he should perceive not by means of an instrument, then 'that [agency] by which it is perceived' would be the perceiver himself, so his essence would observe it. But if he should perceive by means of an instrument, then 'that [agency] by which it is perceived' would be the instrument, so the instrument would observe [the reality perceived].

What is meant by the 'observing' is '[being in] the presence' only.¹⁵⁰ Therefore, there is [here] a refutation of what has been said [to the effect that the] 'observing' would be a species of perception, and thus [the 'observing'] would be more specific than ['perception'], and the definition [here refuted] would be 'by something more obscure.' It is likewise [with] MS 101b what has been said [to the effect] that ['observing would be a species of perception']¹⁵¹ implying that the instrument also would be the perceiver. Thus, if it should be held that only being present 'to that [agency] by which it is perceived' would not be sufficient for perception, and if [a given] entity that would be present to sensate perception should be something to which the rational soul would not pay attention, then [that entity] would not be perceived.

b.-a. The reply to this [reasoning agrees with our position]¹⁵² that the perception would not be the presence of the entity only before

¹⁴⁷ Note terms: 'agency having the perception' [dhī al-idrāk]; 'object of the perception' [al-mudrak].

¹⁴⁸ *Isharat*, v. 2, p. 311.

¹⁴⁹ MS gl: As hearing, sight, and others.

¹⁵⁰ Ibn Sina, *Isharat*, v. 2, p. 311.

¹⁵¹ *Isharat*, v. 2, p. 311.

¹⁵² Combining the readings of the MS and MS Garrett 989Ha "the reply [to this] is" [ujīb bi-anna] with that of L and T "our position is" [qulnā].

Isharat, v. 2, pp. 311-312.

the instrument,¹⁵³ but rather that its being present to the perceiver would be by way of its being present before the 'instrument', if 'that [agency] by which it is perceived' should be the 'instrument'. [It would] not [be] that [the entity] would be present twice, one time before the perceiver and the other time before T 95 the instrument, for the rational soul is the perceiver, but [it would be indirectly] by the intermediation of [the entity] being present before the instrument, if 'that [agency] by which it is perceived' should be the instrument.¹⁵⁴

c. Furthermore, [the fact that the perception of a thing is in its]

1. 'being present to the perceiver' is known from [Ibn Sina's] statement: "[The perception of a thing] is that its real nature is represented before the perceiver", and the

2. 'being present before the instrument' is known from his statement: "... The observer [of its real nature] is that [agency] by which it is perceived."

[Isfahani continues:]

L 208:14, T 95:3, MS 101b:8

Baydawi's theory of perception and knowledge

a. [Perception.] Then, [two centuries after Ibn Sina, Baydawi restudied this material, and reformulated the theory, saying that the various] perceptions¹⁵⁵ are either

1. plainly external, as sensate perception in the five [external] senses, touch, sight, hearing, smell and taste, or they are

2. internal, as [psychic perception in] 'the thought process', 'estimation', and 'imagination'. The internal perceptions are divided into

a) 'concept formation(s)' and

b) 'judgmental assent(s)'; because inevitably, a judgment either
1) would not closely follow perception, or, a judgment

¹⁵³ MS g1: This means that the perception that would be only the presence of the entity before the instrument would not be knowledge. But rather, knowledge is of two classes—1) the perception that is the presence of the entity only before the rational soul, or, 2) [the perception that is] the presence of the entity before the rational soul by way of the instrument.

¹⁵⁴ Ibn Sina, *Isharat*, v. 2, p. 312.

¹⁵⁵ Here Isfahani moves back to his *Commentary* on Baydawi, though without mentioning the transition. We see at the outset here that "Baydawi's theory" provides a remarkable clarification and simplification of Ibn Sina's discussion of the same topic.

2) would closely follow it, the former [stage a)] being a [preliminary and tentative] 'concept formation', and the latter [stage b)] being a [reinforcing] 'judgmental assent' [i.e., 'assent' to the 'conception' as it is being modified through closer perception, and then becomes knowledge].¹⁵⁶ There was a reference at the beginning of this work [i.e., Baydawi's *Tawālī' al-Anwār*] to the fact that this division of the 'thought process' into 'concept formation' and 'judgmental assent' does not at all require that [other] perceptions not part of the 'thought process' may not be classified [also] into 'concept formation' and 'judgmental assent'.¹⁵⁷

b. [Knowledge. Of the perceptions leading to knowledge,

(1.) the internal perceptions comprise—as outlined above—both]

(a) *Concept formation*.¹⁵⁸ The concept¹⁵⁹ that has been [internally] formed of something external to the rational soul,¹⁶⁰ is the existence

¹⁵⁶ MS gl: "The thought alone about something, without any judgment upon it in rejection or affirmation, is called 'forming a conception', or, with a judgment it is called 'judgmental assent.'" [Quoted from Baydawi's statement at the beginning of the Introduction, Chapter 1, Topic 1.]

¹⁵⁷ Loc. cit. in the preceding note, in Isfahani's subsequent discussion of Baydawi's theory of perception becoming knowledge.

¹⁵⁸ See the companion note at the same place in Baydawi's original text. Isfahani's commentary accepts Baydawi's unaccountable reversal of the standard sequence of presentation, namely, *concept formation*—*Tasawwur*, then, *judgmental assent*—*Tasdiq*. In the note immediately following here, Isfahani hazards a guess as to the reason for this reversal, but is not sure why. As Editor, we therefore have changed the text blocks in the commentary to the standard sequence, as was done in Baydawi's text, as follows: in the *commentary*—[*Tasawwur* block L 209:5–L 210:4; T 95:13–30; MS 102a:3–102b:5] is placed ahead of [*Tasdiq* block L 208:20–L 209:5; T 95:7–13; MS 101b:13–102a:2]

¹⁵⁹ L & MS gl: Understand that [the term] 'concept formation' [al-*taṣawwur*] is applied to both a) anything referred to within [the scope of the term] 'knowledge' [MS: [mā yurādif al-*ilm*]; L: [mā yurād fī al-*ilm*], and

b) anything that would be a subdivision [*qasīm*] of the 'judgmental assent', this being a more particular [usage] [*akhaṣṣ*].

So, if the first sense should be meant by [the term 'concept'] here, then it would be contrary to the obvious [presentation] [al-*zāhir*]. This is because [Baydawi's] division of 'perception' [*idrāk*] is first of all into 'concept formation' and 'judgmental assent' [to the concept under formation]. [Thus,] his mention of 'concept' in second place would indicate that its intended meaning would be as a subdivision [*qasīm*] of 'judgmental assent'.

But if the second sense should be meant by [the term 'concept'], then [its] definition would not prevent it from being true of the 'judgmental assent' also. Unless, perhaps, if he should not be intending it as a definition, but should be assigning the burden of [ḥaml] the existence of a 'form' to the 'conception formed' and judgmentally assenting to that [assignment] only, then in that case [the usage] would be in order [*yastaqīm*].

¹⁶⁰ MS gl: This being the doctrine of the philosophers.

of the 'form' of an intelligible object before the knower. What indicates the existence of this form within the intellect [of the knower] is that we do form a conception of a nonexistent entity, and we make it distinct from anything else in a way that would not come to realization unless by its existence. But since a nonexistent entity would have no existence among the individual quiddities, it is therefore determined that [the concept] is within the mind.

An objection has been raised,¹⁶¹ to the effect that if a conception should consist of the existence of the 'form' of an intelligible within [the mind of] the knower, then the mind would necessarily become hot and cold and straight and circular simultaneously when forming a conception of heat and cold, and of straightness and circularity.

[In reply to this objection it can be said], the truth is that if [the philosophers] should mean by 'form' something resembling a reflection in a mirror, then it would be possible that the 'concept formed' would mean the existence of the 'form' of the intelligible within the knower, for then, the 'concept' would be the existence of the 'image' of the intelligible within the knower. Now, an 'image' would be different from many of the distinguishing properties that belong to the subject of the image. And if that is true, then there would be no implication that the mind would [actually] be hot and cold, straight and circular. That would be implied only if the 'conception formed' of the hot and cold, straight and circular should be the occurrence of the very quiddities [i.e., of these qualities]. And that is not the case, but rather, the occurrence is of their images.

[Further in reply to the objection], if [the philosophers] should mean by 'form' something that would have commonality with an external entity in its complete quiddity, then that would be an invalid [meaning], since the 'form' would be an accidental quality because it exists in a subject-substrate,¹⁶² while the [external] object of the conception' might be a 'substance' as are 'bodies'¹⁶³ and their species.

[Baydawi's] statement is, ". . . an entity sometimes will form a conception of itself" constitutes another objection to [the position] that a 'concept formed' would be the existence of a 'form' of the intel-

¹⁶¹ MS gl: The objector is the Imam [F.D. Razi].

¹⁶² MS gl: I.e., in the mind.

¹⁶³ MS gl: Since 'bodies' [ajsām] consist of genera under which are subsumed many species.

ligible object within the knower. A full statement of this objection is that if the 'concept formed' should consist in the existence of the form of the intelligible object being within the knower, then it would imply that there was a joining together of two identical images. But this conclusion is false, and so the premise is likewise.

An explanation of the logic used here is that an entity sometimes will form a conception of itself, as when we form a conception of ourselves. Thus, if a 'conception formed' should be the existence of the intelligible object's 'form' within the knower, then the inference would be, from an entity's conception of itself, that the form of the entity would exist within itself. MS 102b Thus, its own image would occur within itself, and the implication would be that two identical 'images' would be joined together.

Let no one say that if an entity should form a conception of itself, then the intelligent agency and the intelligible object would be one. L 210 Indeed, an intelligent agency would be one capable of bringing before itself an abstracted quiddity, and that [agency] would be more general than one capable only of bringing before itself something different from itself, or its own self. Thus, if an entity should form a conception of itself, there would be no implication that two identical images would be joined together. This is because we [i.e., Isfahani] hold that a thing being present before itself would be necessarily impossible. Thus, inevitably either

1) there would be the joining together of two identical images, or

2) the doctrine would be that 'concept formation' is not the existence of the form of the intelligible object within the knower.

[The internal perceptions also comprise]

(b) *Judgmental assent*. This is either

- 1) firmly convinced, that is, impossible to contradict, or
- 2) not firmly convinced.

(1) [Regarding] the first alternative here, that is, [judgmental assent] as being firmly convinced, is either

aa) due to a factor of [logical] necessity,¹⁶⁴ that is, on account of some indication [of proof], or

bb) not due to a factor of [logical] necessity.

¹⁶⁴ MS gl: Whether it is by sense perception, or by intellectual activity, or by a compounding of both of these.

The second alternative [of the latter pair, i.e., (bb)], that is, [firmly convinced assent] not due to a factor of [logical] necessity, would be 'authoritative tradition'.¹⁶⁵

In the first alternative [of the latter pair, i.e., (aa)], that is, [assent firmly convinced] due to a factor of [logical] necessity, what is linked to it would be either

11) open to contradiction¹⁶⁶ in some aspect, equally whether that would be something external L 209 or something within the one who would set it forth as a matter of analogy, this being a 'belief', or

22) not open to contradiction, whether externally or as a matter of analogy, this being 'knowledge'.¹⁶⁷

[The clause] 'what is linked [to it]' means the relationship of established certainty between the two terms of 'judgmental assent', namely, the object of judgment and the means of it, [certainty] to which affirmation MS 102a or negation may be given.

(2) [Regarding] the second [major] alternative above, that is, judgmental assent as not being firmly convinced,

aa) if [judgment] is equally balanced in its two terms, then it is [called] 'doubt'; but,

bb) if [judgment] is not equally balanced in its two terms, then

11) what is 'preferable' [as more probable] is a 'surmise', and

22) what is less 'preferable' is an 'estimation'.

Another theory is that knowledge is a matter of an adjunctive relationship, namely, a special linkage¹⁶⁸ between the knower and an intelligible object. Thus, 'knowledge' would become a plurality accordingly as intelligible objects would multiply, just as an adjunctive relationship would become a plurality accordingly as the objects governed by adjunction would multiply.

¹⁶⁵ MS gl: I.e., the knowledge of a person accepting authoritative tradition [ʿilm al-muqallid] would be 'firmly convinced' without any necessitating factor, equally whether it is correct or erroneous.

¹⁶⁶ MS gl: What is meant by 'being receptive to contradiction' is more inclusive than for it to be in this same case [fī naḥs al-amr], or as a matter of analogy.

¹⁶⁷ MS gl: In the sense of 'certainty' [yaqīn], not knowledge in the sense of 'perception', which would be more general [aʿamm] than these divisions.

¹⁶⁸ [taʿalluq khāṣṣ] L reads, [taʿalluq ḥāḍir].

Another theory is that 'knowledge'¹⁶⁹ is an attribute¹⁷⁰ that necessarily produces 'erudition', this erudition being a single state¹⁷¹ having a linkage with an 'intelligible object.' On this [basis] 'knowledge' would not become a plurality accordingly as the intelligible objects would multiply, since the linkage of a [single] attribute to a plurality of [intelligible] objects would not imply that the attribute would become multiple, because it is admissible for one entity to have linkages with numerous [intelligible] objects.

[Isfahani continues:]

L 210:9, T 95:34, MS 102b:9

Knowledge and existence

a. One must understand that God Most High's knowledge of Himself¹⁷² constitutes His essence itself. Thus, the knower, the intelligible object, and the knowledge are one, this being [God's] 'proper' or, 'specific' existence.¹⁷³

b. For anyone other than God Most High, to have knowledge of [one's] own essence and of whatever is not external to [one's] own essence, is to obtain the intelligible object [of knowledge] itself. Thus, in having knowledge of one's own essence the 'knower' and the 'intelligible object' [of knowledge] would be one.

Also, [such] 'knowledge'¹⁷⁴ constitutes the existence of '[the sum of] the knower and the intelligible object', and [such] 'existence' is a factor that is added in the case of [all] 'realities possible'; thus, 'knowledge' would be something other than [the sum of] the 'knower'

¹⁶⁹ MS gl: As a 'man' is one while having many linkages and concomitants, such as the capabilities of writing, laughing, walking, amazement, and others, and the multiplicity of these does not imply that the 'man' would be multiple.

¹⁷⁰ MS gl: [I.e.], an existential [attribute].

¹⁷¹ MS glosses: 1. This ['state'] being neither 'existent' nor 'nonexistent.'

2. This is the theory of one holding the doctrine of 'states' [ahwāl], [of the school of Abu Hashim al-Jubba'i.]

¹⁷² ['ilm Allāh bi-dhātihī nafs dhātuhu fa-al-'ālim wa-al-ma'lūm wa-al-'ilm wāḥid wa huwa al-wujūd al-khāṣṣ] . . . See also the MS gloss (f. 102b:10). This [existence] is an identity in the case of the Necessary Existent [wa-huwa 'ayn fi al-wajib]. Compare also Nicholas Heer's translation of a sentence in Jami's *The Precious Pearl*, p. 35, n. 7: "Proper [i.e., specific] existence is identical with the essence in the case of the Necessary Existent."

¹⁷³ At this point Isfahani is adding to the concept of God's specific existence by using the triad metaphor of the 'knower', the 'known self' and the 'knowledge of self' which together are one 'specific existence', which in turn constitutes God's 'essence'. See the fuller discussions at (Bk 1, Sect 1, Ch 2, Topic 3:2), (Bk 1, Sect 2, Ch 3), and (Bk 2, Sect 1, Ch 2).

¹⁷⁴ MS gl: I.e., the knowledge of anyone other than God.

and the 'intelligible object'. Furthermore, the 'knowledge of any of his circumstances that are not external to the knower' would be something other than the 'knower', and the 'intelligible object' also would be something other than the 'knower'.

Thus, in the first case, a single entity is confirmed [as real],¹⁷⁵ and in the second case, two entities [are confirmed],¹⁷⁶ and in the third case, three entities [are confirmed].¹⁷⁷ T 96 'Knowledge of an entity external to the knower' is a way of expressing the occurrence [i.e., within the knower] of a 'form' equivalent to the [external] intelligible object. So [now] four entities are confirmed as real: 1. knower, 2. intelligible object, 3. knowledge, and 4. form. Thus, 'knowledge' would be the 'occurrence of the form of the intelligible object within the knower.'

c. In the knowledge of things external to the knower, there would be:

1. the form, 2. the occurrence of that form, 3. the adjunctive relationship of the form to the [external] thing that is the intelligible object, and 4. the adjunctive relationship of the occurrence to the form.

d. In the knowledge of things not external to the knower, there would be:

1. the occurrence, 2. the thing itself that occurs, and 3. the adjunctive relationship of the occurrence to that thing [that occurs].

There is no doubt that the adjunctive relationship in all of the forms would be an accidental quality, because it MS 103a would be existent within a subject-substrate.

e. Regarding the real nature itself of an [intelligible object] entity within the 'knowledge of things not external to the knower,' that [real nature]

¹⁷⁵ The MS codes the antecedent reference to each case mentioned. Case 1: [MS 102b:9] i.e., God's knowledge of Himself. One entity confirmed as to its reality: 'God's proper (or, specific) existence'.

¹⁷⁶ Case 2: [MS 102b:11] i.e., the knowledge, of anyone other than God, of one's own essence. Two entities confirmed as real: 1) the sum of the 'knower' and the 'intelligible object'; 2) 'knowledge'.

¹⁷⁷ Case 3: [MS 102b:12] I.e., 'the knowledge of any of his circumstances that are not external to the knower.' Three entities confirmed as real: 1) 'knower,' 2) 'intelligible object,' 3) 'knowledge of any of his circumstances that are not external to the knower being something other than the sum of the knower and the intelligible object.'

1. would be a 'substance' if the intelligible object should be the essence of the knower, because then that real nature would be an existent but not in a subject-substrate, necessarily so because the essence of the knower would be such [i.e., an existent but not in a subject-substrate]. L 211 And

2. it would be an accidental quality if the intelligible object should be inherent within the knower, because then that real nature would be subsistent within the essence of the knower, and thus would be an accidental quality.

f. Regarding the 'form' within the 'knowledge of things external to the knower',

1. if it should be the 'form' of an accidental quality in that the intelligible object would be an accidental quality, then it would be an accidental quality without doubt, necessarily so because it would match the delimiting definition of an accidental quality, since [the 'form'] would be existent within a subject-substrate.¹⁷⁸

2. But if [the 'form'] should be the form of a substance in that the intelligible object would be a substance, even then it would be an accidental quality, but there would be ambiguity in it.

a) As for [the form] as an accidental quality, that would be because it would match the delimiting definition of an accidental quality.

b) As for [the form] as an ambiguity, that would be because the substantial nature of the intelligible object, this [latter] being a 'substance', would be an essential attribute [of the form].¹⁷⁹ Thus, its quiddity, from its own aspect, would be 'substance,' while its quiddity, from the aspect of being preserved in a 'mental form', would be [derived] from [the latter].¹⁸⁰ [This is] because whether a quiddity is associated with mental existence or with external [existence] would not necessitate any difference in the quiddity itself. Moreover, if the quiddity of the intelligible object should be preserved in the 'mental form', and [this] quiddity, from the aspect of its own essence, should be 'substance', then the 'mental form' would also be 'substance'. [But] it would not be an 'accidental quality', since it is impossible for a single entity itself to be both 'substance' and 'accident'.

¹⁷⁸ MS gl: I.e., within the intellect.

¹⁷⁹ MS gl: I.e., [an attribute] of its essence, but not in the sense that it would be a part of it.

¹⁸⁰ MS gl: I.e., from the intelligible [al-ma'qûl].

Isfahani continues:

L 211:11, T 96:15, MS 103a:14

Aspects of the 'mental existence' of knowledge

In response [to points in this argument], we [i.e., Isfahani] do not grant [the notion]¹⁸¹ that a quiddity, as such, would be preserved within a 'mental form'.

[Baydawi's] statement is: "Because whether the quiddity is associated with mental existence or with external existence would not necessitate any difference in the quiddity itself."

Our position [i.e., Isfahani's] is that we grant that [statement], but we do not grant that something associated with mental existence would itself be the quiddity of an intelligible [external object], but rather, [it would be] its blurred likeness¹⁸² and image. The blurred likeness and image of that [external] thing will differ from it even while they correspond to it, in the sense that, whatever the result from the [external] thing that would be produced within the intellect, it would be identical to the blurred likeness.

Now, if the 'mental form' should be at variance with the quiddity of the intelligible [external object],¹⁸³ then the fact that the quiddity of the intelligible [external object] MS 103b was something substantially real would not imply that the 'mental form' was something substantially real [as well]. And thus, a single entity in itself would not be both a substance and an accidental quality.

As for an 'occurrence' taking place [within the intellect], equally whether it would be the occurrence of the 'form' of the intelligible thing or the occurrence of the intelligible thing itself, in view of its being the [mental] occurrence of something it would be neither a substance nor an accidental quality. [This is] because [the occurrence] would not receive judgmental assent in terms of this [particular] consideration, [namely], that it would be a 'quiddity' the existence of which would be [either] not in a subject-substrate, or

¹⁸¹ MS gl: "This is a denial by [Isfahani] of mental existence, in spite of what has been examined in his discussions." [From the *Tajrid [al-Aqa'id]* by Nasir al-Din Tusi.]

¹⁸² All sources used agree on this orthography [shabah], rather than [sh-b-h]. Isfahani's choice of the form [sh-b-h] instead of [sh-b-h] may be considered to emphasize audibly the blurring of a mental image of something that is in contrast to the clarity of its external reality.

¹⁸³ L and T: [li-māhīyat al-ma'qūl]; MS: [li-l-māhīyah al-ma'qūlah].

in a subject-substrate; because, in terms of this [same] consideration, it would be an 'existence—(a)'¹⁸⁴ not a 'quiddity' having existence.

Further, in consideration of the fact that the 'existence—(a)'¹⁸⁵ itself would be a 'notion' to which an 'existence—(b)' would be applied as an accidental quality within the intellect, ['existence—(a)'] then] would be an 'accident', because in that case, the delimiting definition of 'accident' would be applied to it [i.e., 'existence—(a)'] by judgmental assent, L 212 since by judgmental assent it would be 'something existing within a subject-substrate'.

This is the way 'knowledge' should be conceived in order that the ambiguities appearing around it would be dispersed quickly.

Baydawi said:

L 212, T 96

Corollaries to the mental form

There are two corollaries to the doctrine of the '[mental] form' [in 'knowing'].

a. The 'mental form' is [an entity] from which the external [form] disengages itself in that the latter: a) is sensately perceived, b) is mutually resistant and impervious [to other external factors], c) is prevented from inhering in any matter that is smaller than itself, and d) is displaced by the occurrence of anything more powerful than itself.

b. The 'mental form' is 'universal' [in reference]: not in the sense that it would constitute a totality [of forms] within itself, for [in this respect] it comprises [many] particular forms in [many] particular rational souls; but rather, because what would be made known by its means would be something universal, and because its relation to each individual example of a given species would be equal.

Knowledge is 'general' [in reference], making linkages with multiple factors with regard to some [one] factor inclusive of them all, and it is 'particular', making linkages with regard to every single [factor]. It is 'active', as when you have formed a conception of an action, then you perform it, and it is 'passive', as when you have observed something, and then you have comprehension of it.

¹⁸⁴ MS gl: Not a 'nonexistence'.

¹⁸⁵ MS gl: This being either the 'occurrence of a form' or the 'occurrence of the [intelligible] thing itself'.

Isfahani says:

L 212, T 96, MS 103b

Corollaries to the mental form

There are two corollaries to the doctrine that knowledge is the occurrence of the [mental] form of the known object within the knower.

a. The first corollary is that the 'mental form',¹⁸⁶—that is, [one] abstracted from extraneous distractions¹⁸⁷ and material properties that do not cleave to the quiddity of the [externally objective] entity in preference to the quiddity that is occurring in the mind,—is [an entity] from which the 'external form', [that being] closely associated with material properties, disengages itself.¹⁸⁸

[This is true], because the 'external form' a. is sensately perceived¹⁸⁹ in the external, and b. is mutually resistant and impervious [to other external factors], because when a 'form' inheres in [a given quantity of] matter it is then impossible for another 'form' like it to inhere in [the matter], and because c. the 'external form' is prevented from inhering in any matter that is too small for it, and because d. the 'external form' is displaced by the occurrence of a 'form' more powerful than it, as in 'the realm of generation and corruption'.¹⁹⁰

Furthermore, [the 'external form'] contrasts with the 'mental form', for [the 'mental form'] a. is not sensately perceived,¹⁹¹ nor b. is it mutually exclusive [and impervious to external factors], as it is admissible for multiple forms to inhere simultaneously within the power of the intellect, nor c. is it prevented from inherence within [the power of the intellect], for whether the form is small or great it may inhere within the intellect,¹⁹² nor d. is the 'mental form' displaced T 97 when something more powerful than it inheres within the intellect.

¹⁸⁶ MS gl: The first is the difference between the 'mental form' that inheres in the rational soul and the 'external form' that inheres in matter.

¹⁸⁷ As 'place', 'quality', 'time', and other [categories of accidents].

¹⁸⁸ MS gl: I.e., in certain aspects.

¹⁸⁹ MS gl: I.e., it is an existent.

¹⁹⁰ MS gl: As one form vanishes and another form comes to be.

See the article, "Kawn wa-fasad" in En-I-2 by Louis Gardet, for the transfer to Arabic from Greek and the development of the notion of 'genesis and corruption'.

¹⁹¹ MS gl: I.e., it does not exist externally to the senses, but rather it exists within the senses.

¹⁹² MS gl: For the rational soul sometimes reflects upon the heavens, just as it reflects upon the [mathematical] point.

b. The second corollary is that the 'mental form' is universal [in reference], not in the sense that it would be a 'totality' [of forms] that in themselves would be within the intellect,¹⁹³—for in this respect they would be particular forms within particular rational souls, and in this respect [the 'mental form'] would also be particular,—but rather, MS 104a the 'mental form' is a universal because what is made known by it is a universal. For example, the form of mankind within the intellect is a universal, because what is made known by it, namely, mankind in itself, is a universal, since it validly has a commonality among many.

On the other hand, the 'mental form' [i.e., of a given species] is a universal because it is related to each individual unit¹⁹⁴ of that species equally, in the sense that if any one of those individual examples should come first to [the attention of] the rational soul L 213 then this form would be derived from it. And if a first example [of this species] has come and the [rational] soul has been influenced by this form, then nothing else would have influence on the soul through any other form.¹⁹⁵ And even if some example [of the species] other than that originally assumed should come first to [the attention of] the [rational] soul, then the influence occurring from it would be that same 'form'. Thus, the 'mental form', in this respect, is a 'universal'.

Knowledge a. is general, being linked to multiple factors with regard to some one factor inclusive of them all, that is the starting point for the particularization of those factors. It is just as when you have understood some problem, but forget about it, and then are asked of it, it comes back to you as a simple stage that is the starting point¹⁹⁶ for the particularization of those factors [involved].

¹⁹³ MS gl: This is in contrast to the external form, for everything that is existent externally is individuated.

¹⁹⁴ MS gl: Of which a conception would be formed by means of this 'form'.

¹⁹⁵ MS gl: I.e., other than the 'form' of mankind.

¹⁹⁶ [L 212 gl: It is a matter of psychic necessity a. to make a distinction between the event that occurs here just after the question, and the state of fixed ignorance just before the question, and b. to note the completeness of detail that is derived from the proposition [under question]. This is so because in the [former] 'state of ignorance', actually called 'forgetfulness', there was no active perception of the answer taking place; but rather, in this stage [hālah] the rational soul becomes stronger in order to bring [the answer] to mind and to apply it in detail without too much difficulty as newly acquired [knowledge], and therein is genuine strength [of intellect]. In the state that comes about just after the question [is raised] active

Also, [knowledge] b. is ‘particular’, being linked with the individual quiddities of each one of those [particular] factors,—as, for example, your knowledge of the parts of a composite quiddity,—in such a way that each part would be conceived separately and differentiated one from the other within the intellect. Thus, if the ‘totality’ should be conceived as having an existence that would be inclusive of everything, and assuming that the ‘existence of everything’ would be one [existence], then a knowledge of the parts would be ‘general’ [knowledge].

Moreover, knowledge c. is active, in that the form of the ‘known object’ comes first of all to the knower, and [then] that ‘mental form’ becomes the reason for the existence of the ‘known object’ among the individual quiddities. It is as when you form a conception of a shape and then you construct it.

And [knowledge] d. is passive, in that the ‘mental form’ is deduced from something existing among the individual quiddities. It would be as when you have observed something, and then you have comprehension of it, as when you observe the heavens, and so derive useful information from the ‘form’ of the heavens.

Baydawi said:

L 213, T 97

The rational soul’s four stages of intellectual development

The topic of the [rational] soul comprises the four stages [of its intellectual development].

a. The first stage is a ‘predisposition to intellectual activity’, and this is called the ‘primordial intellect’.¹⁹⁷

feelings and knowledge about the answer have been taking place that had not been occurring before it. And in the [final] stage of particularization the details [of the matter] have become items of observation with purposeful care, and that had not been happening at all in the two previous states [i.e., just before and just after the question]. [From Jurjani’s *Sharh Mawaqif al-Ijī*.]

¹⁹⁷ Predisposition to intellectual activity [isti’dād al-ta’āqqul]. In his *Ta’rifat al-Sharīf al-Jurjānī* defines ‘the primordial intellect’ [al-‘aql al-hayūlānī] as follows: “It is a genuine predisposition [al-isti’dād al-mahḍ] for the perception of intelligibles [al-ma’qūlāt], and it is a genuine power, but devoid of any action, as with infants. It is related to primal matter [al-hayūla] only because the soul in this stage resembles the earliest primal matter, that in the delimiting definition of its essence is devoid of all forms.”

Saeed Sheikh, in his *Dictionary of Muslim Philosophy*, defines [the ‘primordial] intellect’ as “the material intellect, also called . . . the potential intellect. It is the human

b. The second stage is the 'ability [of the rational soul] to attain self-evident truths' by [applying and] using the senses in dealing with particulars. This is called the 'constitutive intellect', which is the 'balance point in determining responsibility'.¹⁹⁸

c. The third stage is the 'ability [of the rational soul] to attain the truths of logical reasoning to such a degree that it is able to bring them to mind'. It is called the 'active intellect'.¹⁹⁹

d. The fourth stage is [the activity of the rational soul] 'keeping these [truths of logical reasoning] in mind and being involved in study of them'. [This activity] is called the 'equipped intellect'.²⁰⁰

Isfahani says:

L 213, T 97, MS 104a

The rational soul's four stages of intellectual development

[Baydawi] ended his lectures on the [kinds of] perceptions [and knowledge] with an inquiry into the [rational] soul's stages of development.

intellect in its dormant form, merely a latent capacity to apprehend the universals and eternal truths . . ."

¹⁹⁸ In his *Ta'rifat* Jurjani defines the 'constitutive intellect' [al-'aql bi-al-malakah] as "knowledge of the truths of inherent necessity [al-darūriyāt] and the predisposition of the soul, by this means, for acquiring the truths of logical reasoning [al-naẓariyāt]." Saeed Sheikh defines it as "habitual intellect."

The term [manāṭ al-taklīf] (from [nawṭ], a thing held in suspension) is used by F.D. Razi (*Muhassal* p. 104) in explaining the function of the intellect as "the balance point in determining responsibility." Ijī (*al-Mawaqif* p. 146) uses it as a generally acknowledged descriptive term for the intellect but having various senses as applied in different contexts.

¹⁹⁹ In the *Ta'rifat* the 'active intellect' [al-'aql bi-al-fi'l] is defined as "the [ongoing process wherein] the truths of logical reasoning become stored within the intellectual power [qūwat al-'āqilah] by repetitive acquisition to such a degree that [this power] develops the habitual ability to bring them to mind [malakat al-istiḥdār] whenever it wishes, without any difficulty of the [knowledge] needing to be freshly acquired. However, [this power] does not actually observe them."

Saeed Sheikh defines this term as "intellect in action, or the actualized intellect", while he translates another term, [al-'aql al-fa'āl], as the 'active' or, 'agent intellect'. This other term apparently refers to activity of a wider scope and by a different entity, the tenth celestial cosmic intelligence. Saeed Sheikh describes a theory of the latter's intimate role in promoting the developmental stages of the 'soul'. It is curious that Isfahani and Jurjani do not discuss this other entity here, but they define their topic adequately without referring to it.

²⁰⁰ In the *Ta'rifat* the 'equipped intellect' [al-'aql al-mustafād] is defined as [the rational soul] "having arrayed in its presence the truths of logical reasoning that it has perceived, in such a way that they are never absent from it." Saeed Sheikh defines it as "acquired intellect, i.e., the intellect possessed with the comprehension of the universal forms, ultimate concepts and verities of knowledge . . ."

In these stages, [which are four in number,] the [rational] soul becomes²⁰¹ an intellect that is ‘active’ [and ‘equipped’] through the [gradual] perfecting of its substance.

a. The first [stage] is a ‘predisposition of the [rational soul’s] intellect’.²⁰² This is a power of predisposition whose function it is to perceive MS 104b primordial intelligible objects.²⁰³

It is called the ‘primordial intellect’ as a comparison with ‘primal matter’, [matter] that is devoid in its essence of all forms but is capable of receiving them. Moreover, [the primordial intellect] occurs in all human beings when they are first constituted.²⁰⁴

b. The second [stage] constitutes another power that develops in [the rational soul] when it accumulates self-evident truths through use of the senses²⁰⁵ in dealing with ‘particulars’, and therefore becomes capable of acquiring the ‘products of rational thinking’,²⁰⁶ either by thinking or by conjecture. [This stage of psychic power] is called the ‘constitutive intellect’, which is the balance point in determining responsibility.

c. The third [stage] is the power [developed in the rational soul] to summarize L 214 truths of logical reasoning that have been cleared from [its memory], such as things one has observed, [and to do this] whenever it wishes and without any need to reacquire [these things] by logical effort. This [stage of psychic power] is called the ‘active intellect’.

d. The fourth [stage] is the completion [of the process],²⁰⁷ wherein [the soul] keeps [the truths of logical reasoning] in the presence [of consciousness], and is involved in studying them observantly as they are represented in the mind. This [stage of psychic power] is called the ‘equipped intellect’.²⁰⁸

²⁰¹ The scribe of L has skipped this verb.

²⁰² Reading [al-‘aql] with L, the MS, MS Garrett 989Ha, and MS Garrett-Yahuda 4486. The editors of T have followed the orthography of the Baydawi text sources [al-ta‘aqqul].

²⁰³ MS gl: I.e., self-evident truths [al-badīhīyāt].

²⁰⁴ The MS reads: [mabda’ al-ḥīrah].

²⁰⁵ MS gl: [I.e.], both the external and the internal [senses].

²⁰⁶ L, T and MS Garrett 989Ha: [al-fikrīyāt]. The MS has: [al-naẓarīyāt], ‘the truths of logical reasoning’.

²⁰⁷ ‘Completion’ [kamāl] corresponds to the Greek [entelecheia], defined as ‘a state of completion or perfection’, in F.E. Peters, *Greek Philosophical Terms, a Historical Lexicon*.

²⁰⁸ MS gl: That is, further, after the stage of being equipped there are two [other] stages. The first is identical with conviction, wherein the [rational] soul develops

Baydawi said:

L 214, T 97, MS 104b

The power of autonomous action and the will

The 'power of autonomous action' an attribute that produces conformity with the 'will'.²⁰⁹ This is a 'willingness' that is a positive 'inclination' following directly upon a belief [that an action is] beneficial, in the same way that 'abhorrence' is an 'aversion' following directly upon a belief [that an action is] harmful. Furthermore, there is a doctrine that holds that the 'power of autonomous action' is the source of [all] the various [kinds of] actions.

Therefore, the 'potential force of the living animate nature' is a 'power of autonomous action', in the consensus [of scholars]. Furthermore, among those who posit it as being perceptively intelligent, the '[potential force of the] celestial realm' [would be a power of autonomous action] according to the first [definition above], while '[the potential force of the] vegetative realm' [would be a power of autonomous action], according to the second [definition above].

However, the 'potential force of the elements' is external to [this other power, i.e., the power of autonomous action]. It is of a different constitution, because [its constitution] belongs to the genus of heat and cold, and its effective action belongs to the genus of their effective action. But the 'power of autonomous action' is not such.

'Potential force' is the source of an action in an absolute sense. And sometimes [the notion of 'power' as being 'potential'] is applied metaphorically to an action as being a possibility.

'Character' is a habitual natural disposition that enables actions to issue easily from the soul, without prior reflection.²¹⁰

an ability to reach the intelligibles within a transcendental entity, and this [entity] pours forth its abundance to [the rational soul] just as [the soul] does to it in return. The second is the stage of [knowing] the truth of conviction, wherein the [rational] soul is able to have an intellectual communication with the transcendent entity and to encounter it in its essence as an experience of spiritual encounter. [From Jurjani's *Sharh Mawāqif* [al-*ḥijr*].]

²⁰⁹ Power of autonomous action [al-quḍrah]; will [al-irāḍah].

²¹⁰ In Jurjani's *Taḍrīfāt* 'character' [khulq] is defined as "a term for a permanent structure of the soul from which actions come with ease and facility without [prior] need for thought and reflection [reading [rawīyah] with the MS (Isfahani's commentary), and rejecting Fluegel's transcription here [ru'yah].] Thus, if the structure should be such that actions pleasing both to the intellect and to the law should issue easily from it, then the structure is called 'a good character', and if what issues from it should be ugly actions, then the structure that was their source is called 'a bad character.'"

The difference between ['character'] and the 'power of autonomous action' is that the 'power of autonomous action' is related equally to [each of] the two opposites [i.e., the possibilities of acting or not acting]. If anyone should disallow that [interpretation], then by [the 'power of autonomous action'] he would mean that the 'potential force' would be combined with the conditions of its effective action, and on this account he would assert that the 'power of autonomous action' simultaneously would coexist with the 'action'.

'Love' is synonymous with the 'will', thus, the love of God Most High for His creatures is His will to show them favor, and the love of His creatures for Him is their will to obey Him.

'Contentment' is the abandoning of resistance [to His commands], while 'determination' is the 'fixed resolve' of the will after hesitation.

Isfahani says:

L 214, T 97, MS 104b

The power of autonomous action and the will

The 'power of autonomous action' is an attribute that produces conformity with the 'will'. This is a 'willingness' that is a 'positive inclination' that follows directly upon the belief that something would be beneficial, in the same way that the 'abhorrence' is an 'aversion' following directly upon the belief that something would be harmful.

You should understand that 'voluntary actions' have four sources.

a. [The first source of voluntary action is] a particular conception of some action whether suitable or unsuitable as a conception that either corresponds or does not correspond [to an actual case]. It must be a particular conception [of action] only, because T 98 a general conception [of action] would be related equally to all [kinds of] particular [actions] and thus, because of [its generality], no specific particular [action] would take place.²¹¹ If it should be otherwise, then the implication would be

1. that one among the actions on an equality would be preferred above the rest without [there being] an agent of preference,²¹² and

Professor Calverley has noted that the definition given by Baydawi and Isfahani is quoted in al-Tahanawi's *Muʿjam al-Istilahat al-Fauniyah* [= *Dictionary of Technical Terms*].

²¹¹ MS gl: i.e., thus [nothing specific] would be intended.

²¹² Reading with T and the MS. L and MS Garrett 989Ha omit the clause, 'without ...'

2. that not all the particular [actions would take place in such a general conception], because it is impossible for [individual] actions without limit to occur.²¹³

b. [The second source of voluntary action is] a 'desire' springing from that [particular] conceived action that would be toward

1. either [its] attraction, if the action conceived should be pleasing or beneficial as a certainty or a probability, this [alternative] being called a 'natural craving'; or [it would be] toward

2. [its] repulsion and defeat, if the action conceived should be blame-worthy or harmful as a certainty or a probability, this [alternative] being called a 'natural revulsion'.

c. [The third source of voluntary action includes both] the 'will' and the 'abhorring nature'. The former is a [positive] inclination following directly upon a belief that some action would be beneficial, while the latter is a [negative] inclination following directly upon a belief that some action would be harmful.

An indication that there may be a change between the 'will' and the 'abhorring nature' for the 'natural craving' and 'natural revulsion', is the fact that a man may be willing²¹⁴ to take what he does not naturally crave, and may abhor²¹⁵ L 215 taking what he does naturally crave. When either the 'will' or²¹⁶ the 'abhorring nature' is present then one of the two alternatives of 'action' or 'rejection' will receive preference, [although] the relationship of these two alternatives to MS 105a the one having the power of autonomous action over them is equal.

d. [The fourth source of voluntary action is] the 'power of autonomous action', that is a 'potential force' [i.e., in animate beings] distributed²¹⁷ within the muscles.

An indication that this is different from all the other sources [of action] is the fact that a man may have the desire and the will but not the power²¹⁸ to move his body members, along with the fact that one may have the power to do so [but] not the desire and the will.

²¹³ MS gl: Because the particular [actions] would be limitless, and nobody would be able to conceive of them.

²¹⁴ MS gl: [I.e.,] in him there is a 'will' without a 'natural craving'.

²¹⁵ MS gl: [I.e.,] in him there is an 'abhorring nature' without a 'natural revulsion'.

²¹⁶ Reading with the later editors of L and T, while the MS and MS Garrett 989Ha read, "and", that often may be read as 'and/or'.

²¹⁷ Following N.L. Heer's translation in Jami's *al-Durrah al-Fakhrah* at p. 53, # 46.

²¹⁸ MS gl: Like one paralyzed.

Furthermore, the doctrine holds that the 'power of autonomous action' is the source²¹⁹ of [all] the various actions.²²⁰ Thus, the 'potential force' of the living animate nature is a 'power of autonomous action', in the consensus [of scholars], because

1. it is an attribute that produces conformity with the 'will', and
2. it is the source of [all] the various actions.

The potential force of the celestial realm, among those who posit [this realm] to be perceptively intelligent, is a 'power of autonomous action' by the first definition, because it produces conformity to the 'will',²²¹ but it is not a power of autonomous action by the second definition, because it is not the source of [all] the various actions.

The potential force of vegetation is a power of autonomous action by the second definition, because it is the source of [all] the various actions [of plant life] , but it is not a power of autonomous action by the first definition, because it does not produce conformity to a will.²²²

The potential force of the elements is not a power of autonomous action, neither by the first definition because it does not produce conformity to a will, nor by the second definition because it is not the source of [all] the various actions.

The 'power of autonomous action' is something other than the 'natural constitution', because the 'natural constitution' is a quality that stands as an intermediate between heat and cold, [and between] wetness and dryness. Thus, it belongs to the genus of these four qualities, and its effect belongs to the genus of the effect of the four qualities. But the 'power of autonomous action' is not such, for its effect is an 'action'.

Further, 'potential force' is the source of action in an absolute sense, equally whether the action is varying²²³ or is not varying.²²⁴

²¹⁹ MS gl: [I.e.], cause [ʿillah].

²²⁰ MS gl: Such as feeding, growing, generation of the same species, sense perception and motion-change.

²²¹ MS gl: From the fact that it is the source of one action, namely, movement of the heavens, along with perceptive intelligence, that is, along with its having a perceptive intelligence and a will.

Ibn Sina appears to believe in the intelligence of the celestial spheres. Cf. his *Isharat*, 2:412.

²²² MS gl: Since the potential force of vegetation has no will.

See Ibn Sina's *Isharat*, 2:405 ff., where he lists the powers of nourishment taking, growth, and generation as being rooted in the force of vegetation.

²²³ MS gl: As with animate and vegetative action.

²²⁴ MS gl: As with elemental and celestial action.

and whether or not there is an accompanying 'perceptive intelligence' and 'will'. Thus, [potential force] broadly comprises the potential force of the celestial realm, and of the elements, and of vegetation, and of animate nature.

'Potential force' has been descriptively defined²²⁵ as the source of change in another [entity], in that it is another [entity]. The useful meaning of the last qualifying phrase is that one entity might become the source of change of an attribute within itself, as a physician when he treats himself. But inasmuch as [the physician] is the one who provides healing his effective action in reality would be upon another not upon himself.

Sometimes 'potential force' is used to mean the 'possibility of an action' metaphorically. Thus, 'potential force', being a portion of an action, would be the possibility of some action but without its actual occurrence, and 'possibility' would be a part of the meaning [of 'potentiality']. Therefore, when 'potentiality' is said for the 'possibility of an action' as a metaphor,²²⁶ this would be calling a part²²⁷ by the name of the whole.²²⁸

'Character' is a habitual natural disposition²²⁹ that enables actions to issue MS 105b easily from the soul²³⁰ without prior thought and reflection. The difference between 'character' and the 'power of autonomous action' is that the power of autonomous action is related equally to the two opposing action alternatives,²³¹ and thus it is validly applied to both of the opposites. If the 'will' should be joined to [the 'power of autonomous action' for] one of the two opposing alternatives, then that [alternative] would take place because of it; and if the 'will' should be joined to L 216 the other alternative then that other would take place because of it.

This [fact] is in contrast to [what happens with] 'character', for the latter is not related to both opposing [action alternatives] equally. 'Character' would not be valid as a reason for both the opposing

²²⁵ MS gl: This definition is that of the Shaykh [Ibn Sina].

Cf. Goichon, *Lexique*, p. 330, citing Ibn Sina's *Najat*, 348.

²²⁶ The metaphor of 'synecdoche': referring to a whole by the name of a part, or vice versa.

²²⁷ MS gl: Namely, the 'possibility'.

²²⁸ MS gl: Namely, the 'potentiality'.

²²⁹ MS glosses: 1. I.e., a permanent structure. 2. As generosity and bravery.

²³⁰ MS gl: Because it occurs naturally.

²³¹ MS gl: [I.e.], to act or not to act.

[action] alternatives to take place; but rather, it is valid as a reason for only one of the two opposites to take place.

If anyone should deny the fact that the 'power of autonomous action' is related to both the opposing action alternatives equally, then what he would mean by the 'power of autonomous action' is that the 'potential force' would coexist with the conditions of effective action. For if the 'power of autonomous action' should be [identical with] the 'potential force' that coexists with the conditions of effective action, that is, the sum of the factors upon which the effect is organized, then there would be no doubt at all that the 'power of autonomous action' would not be a valid reason for both opposite alternatives [of action] to take place. This is because, if [the power of autonomous action] should be a valid reason [for the occurrence of both opposite action alternatives], then both opposite alternatives would take place, due to the fact that the effect would occur when its cause would be complete.²³²

And as [this opponent who has denied that the power of autonomous action is related to both opposite alternatives equally] was meaning by the 'power of autonomous action' the 'potential force' that is coexistent with the conditions of effective action, he asserted that the 'power of autonomous action' coexists simultaneously²³³ with the action, because of the inherent necessity that an effect would exist when the complete cause would exist.

'Love' is synonymous with the 'will'. Thus, the love of God Most High for His creatures is His will to show them favor, and the love of His creatures for the Most High is their will to obey Him.

Sometimes [the term] 'love' is applied to the conception of some [type of] perfection, whether of pleasure, or of benefit, or of one's own kind. That [kind of conception] would be like the love of a lover for his beloved, and of the one who bestows favors for the one who receives them, and of the father for his child, and of the friend for his friend. As for the love of God Most High among the devotees of mysticism, that would be a conception of the absolute perfection that is in Him.

²³² MS gl: And that would imply the joining together of two opposites.

²³³ MS glosses: 1. [I.e.], in a time-duration, because if it should precede the action in a time-duration, then it would imply that the caused result would lag behind [takhalluf] the cause, and that would be absurd. 2. As is the doctrine of the Asha'irah; while with the Mu'tazilah it precedes the action.

'Contentment' on the part of human beings is the abandonment of resistance [to God's commands],²³⁴ while 'contentment' on the part of God Most High is [His] will to reward.

'Determination' is a fixed resolve of the 'will' following upon [the] hesitation that comes from various motives that spring from mental opinions and from natural cravings and aversions that conflict with one another. If no preference for one side [or another] should develop, then perplexity results, but if [a preference] does exist, then a determination takes place.

Baydawi said:

L 216, T 98

Pleasure and pain are self-evident concepts

The doctrine [of the philosophers] is that pleasure is the perception of something agreeable, while pain is the perception T 99 of something disagreeable.²³⁵

This requires consideration, because [sometimes] we find ourselves in a special state [i.e., of pleasure] and we know that we are perceiving something agreeable, but we do not know whether that state is the perception itself or something else. Assuming that it is something different, then the pleasure either would be both [the perception and something else], or it would be one of the two.

The theory that pleasure is the dispelling of pain is an error,²³⁶ because a person may find pleasure in looking at a beautiful face, or in solving a problem, or in stumbling unexpectedly upon wealth having had no previous thought of it.²³⁷

²³⁴ MS gl: It would be better that a further modifying phrase be added to this, namely, "with quietude of soul"; as the abandonment of resistance is sometimes because of dread.

²³⁵ Ibn Sina discusses pleasure, along with good and evil living and the consequences, in his *Isharat*, 3:334 ff. Isfahani comments at length on this section. Among other things, Ibn Sina defines 'joy' [al-bahjah] 'contentment' [surūr] and 'health with wealth' [naḍrah]; 'happiness' [sa'ādah] is the opposite of 'misery'.

²³⁶ This is the doctrine of Muhammad ibn Zakariya al-Razi. See A.J. Arberry's translation of his book, *The Spiritual Physick of Rhazes*, pp. 39–40.

²³⁷ All other sources used [including those for the Commentary text] agree in the reading, [khuṭūr sābiq]; the typesetter of T misreads the similarly shaped consonants to be [ḥuṣūl sābiq].

Isfahani says:

L 216, T 99, MS 105b

Pleasure and pain are self-evident concepts

'Pleasure' and 'pain' are both intuitive concepts MS 106a because they are psychic intuitions. You have learned that with psychic intuitions there is no need for logical and systematic reasoning in order to attain to them [mentally].

The philosophers' doctrine is that pleasure is the perception of something agreeable, and pain the perception of something disagreeable.

But this requires consideration, for when we eat and drink and have sexual intercourse we find ourselves in a special state²³⁸ and we know also that we are perceiving these L 217 agreeable things. But we do not know whether this 'special state' is

- a. identical with this 'perception', or is
- b. concomitant to [the perception], or whether [the state]
- c. has [the 'perception'] for its concomitant, or whether [the state]
- d. is not concomitant to [the perception], or whether [the state]
- e. does not have [the perception] for its concomitant.

It would not be sufficient,—in explaining that [the 'state of pleasure'] constitutes the 'perception' itself, to say that we find [pleasure] by way of [the perception] and so [the pleasure] is identical to [the perception itself], because this argument is [merely] verbal.²³⁹

Moreover, a questioner could object that if you have assigned the name 'pleasure' as the name for this 'perception', then there would be nothing to dispute;²⁴⁰ but why then would you not say that the special state [of pleasure] we find in the soul would constitute this very perception?

There is no doubt at all that this logical goal may not be realized from this point of view.²⁴¹ Also, assuming that the special state would be something distinctly different,²⁴² then the pleasure would

²³⁸ MS gl: Namely, pleasure.

²³⁹ MS gl: Baydawi's statement is, "[it is merely] a verbal argument", that is, [it is] a statement without supporting proof.

²⁴⁰ MS gl: There is nothing to debate in the meaning of a technical term.

²⁴¹ MS gl: I.e., in that people would say, "We find the one by way of the other, therefore the one is identical to the other."

²⁴² MS gl: I.e., assuming that the 'perception' would be distinct from the 'special [state of] pleasure'.

be either both of them, that is, both 'special state' and 'perception', or [it would be just] one of those two; and thus, [the argument] would not result in a certainty that the ['state of] pleasure' would be [identical to] the 'perception'.

[Isfahani continues:]

Ibn Sina's ideas on pleasure and pain

In [his book] *al-Isharat [wa-al-Tanbihat]*,²⁴³ Shaykh [Ibn Sina] has descriptively defined [the term] 'pleasure' according to its spoken usage as being a "'perception and attainment' in experiencing what [not only] to the perceiving agency [of the mind seems] complete and good, [but] from its own standpoint [truly] is complete and good."²⁴⁴ 'Pain' [on the other hand] is a 'perception and attainment' in experiencing what [not only] to the perceiving agency [of the mind seems] pain and evil, but from its own standpoint [truly] is pain and evil."

Now, the definition of 'perception' has been given previously,²⁴⁵ while the [act of] 'attaining' is [an act of] psychic intuition. This is not restricted to perception, because 'perception' of an entity may be [merely] the obtaining of its likeness and image, but attaining [the entity] would not take place except upon obtaining the entity itself. And 'pleasure' is not realized [merely] by obtaining the likeness of a pleasing thing, but rather, it is realized by obtaining the thing itself.

['Pleasure'] is not restricted only to the 'attainment', because 'pleasure' is not realized without the 'perception' [of it]. And 'experience' does not indicate the [need for] 'perception', except through [its] 'engagement' [i.e., 'experience' being made concomitant to 'perception'].²⁴⁶

[Ibn Sina] mentioned both of the factors [i.e., 'perception and attainment'] only because there is no [single] word that would indicate and be applicable to their joint function. He mentioned first

²⁴³ Located at v. 3, p. 337 of 2nd ed. Teheran, 1403/1982-83, containing Nasir al-Din al-Tusi's commentary and Qutb al-Din al-Razi's glosses.

²⁴⁴ Ibn Sina: [Inna al-ladhdhah hiya idrāk wa-nayl li-wuṣūl mā huwa 'inda al-mudrik kamāl wa-khayr min ḥayth huwa ka-dhālik.]

²⁴⁵ MS gl: Namely, that the real nature of an entity is represented to the one who perceives.

²⁴⁶ MS gl: Because perception is a concomitant of psychic intuition [al-wijdān].

the more inclusive [term]²⁴⁷ that was indicated by [the context of] reality, and that [in turn] supplied the specifying [term]²⁴⁸ indicated by a metaphor.²⁴⁹

[Ibn Sina] said, “in the ‘experiencing of what’ [not only] to the perceiving agency [of the mind] . . .,” MS 106b—he did not say, “‘in what’ [not only] to the perceiving agency [of the mind] . . .,”—only because the pleasure itself is not merely ‘a perception of the pleasing object’, but rather, it is ‘a perception²⁵⁰ of the one receiving pleasure’s experience with the pleasing object’.

[Ibn Sina] said, “. . . what [not only] to the perceiving agency [of the mind seems] perfect and good”, because sometimes the [pleasing] object might be perfect and good only in relation to some [other] thing,²⁵¹ while [he the perceiver] would not be convinced of [the first object’s] qualities of perfection and goodness and so would not take pleasure in it. Or, sometimes [the object] might not be complete and good in relation to him [the perceiver], although he [himself] might be convinced of its qualities of perfection and goodness and might receive pleasure in it.

Thus, the factor [to be] considered in receiving pleasure in something is [how] its qualities of perfection and goodness [seem] to the perceiving agency [of the mind], not how they are in the fact of the matter.

‘Perfection and goodness’, in this instance,²⁵² are perfection and goodness in comparison to something else.²⁵³ Together their significance is that when an event takes place it does so regarding something whose nature it is for such to happen to it, that is, is suitable for and appropriate to it.

The difference between ‘perfection’ and ‘goodness’ is in how they are logically considered. The event that takes place and is appropriate,—from the standpoint that it requires a sort of permit²⁵⁴ to

²⁴⁷ MS gl: I.e., ‘perception’.

²⁴⁸ MS gl: I.e., the ‘attaining’ [nayl].

²⁴⁹ MS gl: I.e., by its ‘engagement’ [iltizām] [i.e., the ‘attaining’ being made concomitant to the ‘perception’].

²⁵⁰ MS gl: [I.e.], of the obtaining [huṣūl] of the pleasing object by the one pleased, and his experiencing of it.

²⁵¹ The MS alone inserts ‘one’.

²⁵² MS gl: I.e., in the definition of ‘pleasure’.

²⁵³ MS gl: I.e., in relation to the perceiving agency, not in the fact of the matter.

²⁵⁴ MS gl: I.e., [a travel permit] for exit from ‘potential force’ [al-qūwah] to ‘action’ [al-fiʿl].

transit from [the status of] a 'potentiality' to that of an objective [event] that happens to it,—would be 'perfection', L 218 but from the standpoint that it is a resulting effect,²⁵⁵ [it] would be 'goodness'.

[Ibn Sina] mentioned them both only because of the linkage of the meaning of 'pleasure' with both of them, and he held back mention of 'goodness' until later in order to enhance it by specifying that sense [i.e., 'chosen' = 'goodness'].

[Ibn Sina] said, "... [but] from its own standpoint [truly] is perfect and good", only because the entity [i.e., that is the 'pleasing object'] sometimes is 'perfect and good' from one aspect and not from another. But to 'receive pleasure by it' [would be an action] belonging specifically to the aspect from which the 'perfect and good' comes, that is, from that [first] aspect [mentioned], for this is the quiddity²⁵⁶ of 'pleasure'.

Opposite to it is the quiddity of 'pain'. The meaning of the qualifications bound up in that [opposite] regard²⁵⁷ will be known when one has an understanding of the meaning of the qualifications bound up in this [present] regard.²⁵⁸

Muhammad ibn Zakariya [al-Razi], the Physician, asserted [that] pleasure is the removal of pain²⁵⁹ and a return to the natural state.²⁶⁰

The reason for this surmise²⁶¹ was that something due to an accidental quality²⁶² had taken the place of what is due to the essence.²⁶³ Moreover, because pleasure is not made complete for us except by perception, and [because] sense perception, especially that of touch, occurs only as a passive reaction to its opposite,²⁶⁴ and thus, if the

²⁵⁵ MS gl: I.e., it is something chosen [mukhtār].

²⁵⁶ MS gl: As musk that is agreeable [mulā'im] as a fragrance but not as a flavor, so the perception of it as a fragrance is a pleasure.

²⁵⁷ MS gl: [I.e., in the case of] pain.

²⁵⁸ MS gl: [I.e., in the case of] pleasure.

²⁵⁹ MS gl: Thus, it would become nonexistent ['adamīyah].

²⁶⁰ "Pleasure consists simply of the restoration of that condition which was expelled by the element of pain, while passing from one's actual state until one returns to the state formerly experienced.... Hence the philosophers have defined pleasure as a return to the state of nature." [from *The Spiritual Physick of Rhazes*, translated by A.J. Arberry, p. 39. London: J. Murray, 1950.]

²⁶¹ For the translation of [zann] as "surmise", see the sections preceding, Baydawi on 'perception and knowledge'.

²⁶² MS gl: I.e., the removal of pain.

²⁶³ MS gl: I.e., the perception of what is agreeable.

²⁶⁴ MS glosses: 1. I.e., [an opposite] quality; 2. I.e., a state other than the natural one.

[negative] quality should remain permanently, then no passive reaction would occur, no sensation would occur, and no pleasure would occur, and since pleasure occurs only when there is an exchange [for the return] of the natural state,²⁶⁵ [M.Z. Razi, the Physician], surmised that the pleasure itself was that passive reaction.

However, this²⁶⁶ is incorrect. Indeed, if a man's sight should fall upon a pleasant face then he would find pleasure in looking at it, in spite of the fact that previously he had not had such a feeling for that face as would make the pleasure amount to liberation from the distress of longing for it.

Likewise, MS 107a such a great pleasure [of insight] might come without previous warning upon a man studying a problem that that pleasure would remove his distress in hoping for [a solution].

Likewise, great pleasure might come upon a man who finds a treasure trove suddenly [and] without previous warning.

Baydawi said:

L 218, T 99

Health and illness, and related emotions

Health is a state or habitual disposition, wherein actions issue from their subject-substrate as free from defect. Illness is contrary to it, for there is nothing intermediate.

As for [the related emotions of] joy, grief, hatred, and the like, they do not need explanation. T 100

Isfahani says:

L 218, T 100, MS 107a

Health and illness, and related emotions

Health is a state or habitual disposition in which actions issue from their subject-substrate²⁶⁷ in a sound and flawless manner.²⁶⁸ [However],

²⁶⁵ Reading [al-ḥālah al-ṭabīʿīyah] with L, T, MS Garrett 989Ha and MS Garrett-Yahuda 4486, the exchange of states being viewed here as 'towards the natural state'. Inserted in the MS is 'other than'... [al-ghayr al-ṭabīʿīyah], the exchange being viewed [apparently by an owner of the MS] as 'away from the unnatural state'.

²⁶⁶ MS gl: I.e., this surmise.

²⁶⁷ MS gl: Namely, the healthy body members.

²⁶⁸ MS gl: Health and illness being qualities of the rational soul, contrary to [the views of] many.

illness is in contrast to this, that is, it is a state or habitual disposition in which actions issue from their subject-substrate²⁶⁹ but not in a sound and flawless manner.

There is no intermediate stage between these two [health and illness], because [Baydawi] meant²⁷⁰ that there would be a single subject-substrate [i.e., the members of one human body] in relation to a single action in a single [given] moment, L 219 and from that standpoint [the subject-substrate with its action] would be either sound and flawless, or it would not be so; thus, no intermediate stage would exist between health and illness.²⁷¹

Those who affirm that there is an intermediate stage between the two [alternatives]²⁷² mean by 'illness' that a living person is in such a state that all his actions [and functions] are disordered, and by health [they mean] that a living person is in such a state that all his actions [and functions] are sound and flawless. Thus, between the two [alternatives] there would be an intermediate stage, namely, that [the state of a living person] would be such that some of his actions [and functions] would be sound and flawless and others not so, or, [they would be so] sometimes, but not at other times.

As for 'joy', 'sorrow',²⁷³ 'hatred' and the like, [they are emotions], as are [also] 'anger', 'sadness'²⁷⁴ 'confusion', and 'anxiety'.²⁷⁵ They do not need explanation, because everyone necessarily perceives the real natures of these emotions,²⁷⁶ and distinguishes them from others. So they do not need to be defined. These [emotional] qualities follow upon passive reactions that are properties of the spirit in the heart,²⁷⁷

²⁶⁹ MS gl: Namely, the [ill] body members.

²⁷⁰ L and MS Garrett 989Ha have no insertion here; but insertions in the MS and T vary—MS: 'by the two of them'; in T: 'by health'.

²⁷¹ MS gl: This is the doctrine of Shaykh [Ibn Sina].

The Editor could not find a reference to this specific medico-philosophical doctrine in Ibn Sina's *Isharat*, nor in A.-M. Goichon's article "Ibn Sina" in En-I-2, nor in M. Marmura's article "Avicenna" in the *Encyclopedia of Philosophy*.

²⁷² MS gl: This is the doctrine of Galen. [See the article, "Galenus", by R. Walzer, in [En-I-2, v. 2, pp. 402–403] for Galen's importance in the history of Arabic medicine. He lived A.D. 129–ca. 199, being "the last great medical writer in Greek antiquity."

²⁷³ MS gl: That is protracted.

²⁷⁴ MS gl: [ghamm] 'depression' [that happens] quickly, [i.e., 'sadness'].

²⁷⁵ MS gl: This is intermediate [as an emotion].

²⁷⁶ MS gl: Because they are psychic intuitions [wijdānīyāt].

²⁷⁷ MS gl: This is the living animate spirit [al-rūh al-ḥayawānī] that is different from [ghayr] the rational [human] soul [al-nafs al-nāṭiqah].

and those qualities become strong or weak because of the strength or weakness of the passive reaction.

Baydawi said:

L 219, T 100

3. *Qualities specific to quantities*

The qualities specific to quantities are either

- a. themselves accidental to the quantities, being either
 - 1. the inseparable kind, as straightness, circularity, crookedness, and shape, or
 - 2. the separable kind, as numerical 'evenness', numerical 'oddness', 'prime numbers', and 'composite numbers',²⁷⁸ or they are
- b. a compound of [these qualities] with others [i.e., that do not qualify quantities], such as [one's] physical constitution that is composed of shape and color.

Isfahani says:

L 219, T 100, MS 107a

3. *Qualities specific to quantities*

Qualities specific to quantities²⁷⁹ are either

- a. themselves accidental to quantities, that is, without their having been combined with something else, or
- b. not themselves accidental [to quantities], but rather, MS 107b as a compound of these [qualities specific to quantities] together with others [not specific to quantities].

(a.) Qualities that are [themselves] accidental to quantities, are accidental either

- 1. to inseparable quantities, such as straightness, circularity, crookedness and shape:—

a) 'straightness' meaning that a line is such that its assumed parts correspond to each other at all places;

²⁷⁸ MS Garrett 989Hb and MS Garrett 283B omit "numerical oddness", from this list.

²⁷⁹ Isfahani's presentation includes not only the topical statement, but also a brief mention of its two divisions. We omit those four lines as redundant to the text proper that follows here.

b) 'crookedness', however, being contrary to this, for it means that the parts [a line] is assumed to have do not correspond at all places, as in the parts a bow may be assumed to have, for if the concave part of one of two bows is set over the convex part of the other [bow], then one of them matches the other, but at any other place it does not match;

c) 'circularity' being a [flat] surface such that one line surrounds it, with the assumption that inside [that line] there is a [center] point from which all straight lines are equal L 220 as they radiate out to the [outer] line;

d) and 'shape' constituting the structure of what is enclosed by the boundary or boundaries of a body;—

2. or, to separable quantities [such] as

a) numerical 'evenness';

b) numerical 'oddness';²⁸⁰

c) 'prime numbers', that [are the case] whenever a number is such that nothing [i.e., no other number] can calculate its factors except 'one', as are 'three' and 'five' and 'seven'; and

d) 'composite numbers', that [are the case] whenever a number is such that some [number] other than one can factor it, as will 'four', that 'two' will factor, and 'six', that 'three' and 'two' will factor.

(b.) Qualities [that are not themselves accidental to qualities, but rather,] are compounded, [both of those specific to quantities and of others that are not], are like one's physical constitution²⁸¹ that is composed of [both] shape and color.

Baydawi said:

L 220, T 100

4. *Qualities of predisposition*

If the predisposition should be on the side of 'nonreceptivity', as is 'hardness', then it would be called a 'potential force [of resistance]', but if the predisposition should be on the side of 'receptivity', then

²⁸⁰ L omits numerical 'oddness', while MS Garrett 989Ha supplies this phrase as an insertion.

²⁸¹ MS gl: This is accidental to the body that is a quantitative measure [miqdār], the constitution being composed of shape, one of the qualities mentioned, and of color, that is a sensate quality not accidental to quantities.

it would be called ‘weakness’ [i.e., ‘softness’] or, ‘not a potential force [of resistance]’.

Isfahani says:

L 220, T 100, MS 107b

4. *Qualities of predisposition*

The qualities of predisposition are intermediary²⁸² between the two extremes of opposition, namely, ‘nonpassivity’ and ‘passivity’²⁸³ or, ‘nonreceptivity’ and ‘receptivity’. Therefore, if the predisposition should lean strongly²⁸⁴ toward nonreceptivity and nonpassivity, as do ‘hardness’ and ‘soundness of health’,²⁸⁵ then it would be called a ‘potential force [of resistance]’. But if the predisposition should lean strongly toward receptivity and passivity, then it would be called ‘weakness’ [i.e., ‘softness’] and ‘not a potential force [of resistance]’, as are ‘softness’ and ‘infirmity of health’.²⁸⁶

²⁸² MS gl: I.e., one [of them] would not be a property of [lā yakhtaṣṣ li-] one of the two extremes, but rather, it would incline to one extreme or the other.

²⁸³ The MS reverses this sequence.

²⁸⁴ T: “if the predisposition should be a strong predisposition toward.” L: “if it should be a strong predisposition” [in kân isti’dādan]; the MS varies slightly from L in the verb [in kânat isti’dādan].

²⁸⁵ Glosses: 1. In the MS: [derived] “from ‘health’, ‘soundness’ [al-ṣiḥḥah].”

2. In MS Garrett 989Ha: [derived] “from ‘true’, ‘genuine’ [ṣaḥīḥ].”

Vowelling shown in the MS and MS Garrett 989Ha.

²⁸⁶ ‘Soundness of health’ [al-miṣḥāḥiyyah] (MS gl: [derived] from ‘health’); ‘infirmity of health’ [al-mimrāḍiyyah] (MS gl: [derived] from ‘sickness’).

Baydawi said:

L 220, T 100

CHAPTER 4: ACCIDENTS OF RELATION

1. *Whether they appear in external existence*

The majority of the Mutakallimun denied [any appearance in external existence by the accidents of relation] except for that of 'place-where'. They held that if [these accidents] should have [external] existence, then that existence would take place within their substrates, so the argument would be an infinite series.

The philosophers argued that the [accidents of relation] are real, [being neither] a theory nor a mental entity, and therefore, they belong among external entities. They are not nonexistents, for they occur after having had no being, nor do they have a body, because they are not physically comparable with anything else. But this [argument] is contradicted by [the fact of] the termination and passing away [of the accidents of relation].

Isfahani says:

L 220, T 100, MS 107b/108a

CHAPTER 4: ACCIDENTS OF RELATION

The accidents of relation are the seven that remain, namely,

1. place-where, 2. adjunction, 3. time-when,¹ 4. position,¹ 5. possession as habit, 6. activity, and 7. passivity.²

In this chapter [Baydawi] discussed three topics: 1. Whether the accidents of relation appear in existence; 2. The case of 'place-where'; 3. The case of 'adjunction'.

¹ Cf. Section 2, Chapter 1, Topic 1 above. The term, 'position', is favored over 'posture' because a) it appears to be the generally preferred term for this category, and b) it is a more general term than 'posture', which is the favored term in Bernard Wuellner's *Dictionary of Scholastic Philosophy*, [Milwaukee: Bruce Publishing Co., 1956]; see under 'position', 'posture', and his chart of Categories. 'Position' includes the meaning of 'posture' without additional qualification, but 'posture' does not include the meaning of 'position' unless it is additionally qualified.

² For items (6) and (7) see the previous discussion of the categories cited in the note for item (4) [i.e., Book 1, Section 2, Chapter 1, Topic 1].

1. *Whether [the accidents of relation] appear in external existence* L 220, T 100, MS 108a

The majority of the Mutakallimun denied that the accidents of relation appear in [external] existence, L 221 holding that they have no external existence, except for the accident of 'place-where'.

Their argument that the accidents of relation have no external existence was on the basis that, if the accidents of relation should exist externally, then

- a. they would exist in their substrates, and
- b. their occurrence within their substrates would constitute a relation between them and their substrates, and
- c. that relation [in turn] also would be within the substrate; moreover,
- d. that relation would be 'something other' than the accident itself, and
- e. that 'something other' would also be an occurrence within the substrate, so
- f. its 'occurrence within the substrate' would constitute [another something] additional to [the relation], and [thus] an infinite series argument would be implicit.

One should understand that if these seven categories³ should [all] be 'relations' then they would be a 'species' under a superior genus,⁴ but [the 'relations'] are not superior genera. Thus, the superior genera of the accidents are three (in number): 'quantity', 'quality', and 'relationship', the seven remaining being species subsumed under 'relationship'.

Those who reckon these seven as 'superior genera', do not mean by them something into whose essence a 'relationship' would enter,⁵ but rather, something to which a 'relationship' would be accidental, except for the accident of 'adjunction', for the very notion of [this latter] is a 'relationship', and to suggest it here would be only to repeat the 'relationship'.

The philosophers argued that the 'accidents of relation' are existent [externally] in the individual quiddities, in that the accidents of

³ MS gl: *Le.*, the accidents of relation.

⁴ MS gl: This being in an absolute sense.

⁵ MS gl: Since, if the 'relation' should enter within their essence, then the seven would not be 'superior genera', because the 'relation' would be a 'superior genus' above them.

relation are realized, as they are neither a theory nor a mental entity.

For example, [the fact] that the sky is above the earth is a matter [of relationship] that presently exists, equally whether or not a theory [about it] or [its status as a] mental entity [also] exists, so it is a fact of external reality.

Nor are [the 'accidents of relation'] nonexistent, because they occur after not having had being. Indeed, a given thing might not have being [in a position] above, and then [later] it will come to be [in a position] above. Thus, the 'aboveness' that comes into being after [its previous] absence would not be nonexistent. If it should be otherwise, then it would be [a case of] a negation of the negative being something negative, which would be absurd. And so, the 'relation of aboveness' would be a matter of positive fact.

Nor would [the 'accidental relation' of 'aboveness'] have a body. MS 108b [This is] because something having a body, as such, would not be an intelligible object in comparison with something else, while [on the other hand] 'being above', in respect of its 'being above', would be an intelligible object in comparison with something else.⁶

However, the argument⁷ of the philosophers is contradicted by [the facts of] 'termination' and 'passing away'. A full statement of the contradiction is that if the argument of the philosophers should be sound, then it would imply that both 'termination' and 'passing away' would be accidents that exist among the individual quiddities. But the conclusion is false. Otherwise, the implication is that 'termination' and 'passing away' would be described as two genuine accidents subsisting in something terminating and something passing away, at a time when both [of these substrates] would be nonexistent, and thus, an existent would be subsisting in a nonexistent, which is absurd.

To explain the [philosophers'] logic used here, it is [as when] we judge concerning yesterday that it has terminated and passed, equally whether or not there may be a theory [about it] or [it has status as] a mental entity. So then, both ['termination' and 'passing away'] would belong among the external [realities], and they would not be nonexistent, because they came into being after not having had being.

⁶ MS gl: So, these accidents would be existent and additional to anything having a body, which was the logical goal [al-maṭlub].

⁷ MS gl: That 'relation' is an externally existent entity.

Now, 'yesterday' may not [yet] have terminated and passed away, but then it does come to be terminated and past; therefore, the 'termination' and the 'passing away' that occur after their previous absence would not be nonexistent, otherwise, it would be [a case of] a negation of a negative being something negative, L 222 which would be absurd. So, [say the philosophers], 'termination' and 'passing away' would be matters of positive fact, but they would not be the same as 'today', because there would be no realization of them when that 'today' would be realized; thus, they would be two existent accidents.

You must understand that a proposition that is 'rational',⁸ as the sky having 'aboveness', is to be distinguished from one that is 'theoretical'. Indeed, perhaps it might be theorized that the sky would have 'belowness', but rather, [the point is that] what is 'rational' is that which must take place in the intellect, if the intellect thinks of that proposition, as the sky having 'aboveness'.

As for [a proposition that is] 'theoretical', that is what the theorizer proposes as a theory, even though it should be impossible. And [a proposition] that would be 'mental' would include both the 'theoretical' and the 'rational', and each one of these must be understood, lest some mistake occur on account of ambiguity.

Baydawi said:

L 222, T 101

2. *The case of 'place-where'*

The Mutakallimun call [the 'place-where', an 'instantly generated place of] being'.⁹ They held that the 'occupying presence' of a 'substance' for two or more atomic moments in one 'location' constitutes 'rest', while [if it should be] in two 'locations' then it constitutes 'motion-change'. So, at the beginning of its temporal existence [the presence of the substance] would be neither 'motion-change' nor 'rest'.

The philosophers held that 'motion-change' is an 'initial completion'¹⁰

⁸ MS gl: This statement refers to criticism of the philosophers' argument, regarding the fact that they do not differentiate between the 'theoretical' and the 'rational'.

⁹ In his *Ta'rifat* Jurjani defines [kawn] "The name for something that occurs instantaneously, like the transformation of water into air."

¹⁰ Arabic: 'initial completion' [kamāl awwal]; cf. the Greek: 'state of completion or perfection', [entelecheia] as in F.E. Peters, *Greek Philosophical Terms*. There is con-

for anything that is 'potential'.¹¹ An explanation of this doctrine is that 'motion-change' is a quality that can be attained by a body, thus, attainment of [the state of 'motion', or, 'change'] would be a [preliminary, initial, kind of] completion.

Now, [motion-change] is different from anything else, from the standpoint that its real nature is nothing more than an 'arrival' [i.e., by a body] at 'the other' [i.e., another stage, or, another 'place of [instant] being']. Thus, that other [place of instant being] toward which [the body] is directed would be [a reality] capable of existing, in order that the 'arrival' might take place. Therefore, the occurrence [of the 'arrival'] is a 'second completion' [in motion-change].

Furthermore, to some degree, that self-directed progression, as long as it is that, remains [in its status] as 'potentiality'. If it should be otherwise, then it would be a [completed] arrival, and not a [continuing] self-directed progression. So, it is made clear that [motion-change] is an 'initial completion' of anything that is 'potential', from the standpoint that it is [still largely] 'potential'.

In summary, [this definition of motion-change by the philosophers] approximates what their forebears [i.e., the early philosophers] had said, namely, that [motion-change] is a gradual passage out of 'potentiality' into 'actuality'.¹²

Isfahani says:

L 222, T 101, MS 108b

2. *The case of 'place-where'*

A 'place-where' is the occupying presence of a body in a [particular] 'location'. The notion of 'place-where' is completed only in the

siderable overlapping in the meanings of 'perfection' and 'completion'. In the previous chapter it has seemed appropriate to use the sense of 'perfection' in the translation. Here in chapter 4 we believe the sense of 'completion' predominates, in expressing the notion of 'procession from potentiality to actuality'.

¹¹ The idea of [unreleased] 'force' is a continuing element in the western concept of 'potentiality', the term, 'force', often being dropped, while the term [qūwah] remains in the Arabic designations for 'potential' and 'potentiality'. Earlier English translations used the term, 'potency'.

¹² [To Aristotle] "Every change, including that of position, implied the passage from potentiality to actuality." [*Encyclopedia of Philosophy*, s.v. "change", by Milic Capek.]

"Def.: The fulfillment of what exists potentially, in so far as it exists potentially, is motion, namely, of what is alterable . . ." [From Aristotle, *Works*, "Physics" III:1, transl. R.P. Hardie and R.K. Gaye, Ed. W.D. Ross, in R.M. Hutchins, ed., *Great Books of the Western World*.]

relationship that a 'body' has to the 'place' where it is, for its relationship to the [particular] location is one of its concomitants, not that [the body] constitutes the relationship itself¹³ to the location.

The Mutakallimun call the 'place-where' ['an instantly generated place of] being'.¹⁴ They held that the occupying presence of substance for two or more [atomic] moments in one location would constitute 'rest', MS 109a while the occupying presence of substance for two [atomic] moments in two locations would constitute 'motion-change'. So, at the beginning of its temporal existence the presence of 'substance' is neither 'motion-change' nor 'rest'¹⁵ because it lies outside their delimiting definitions. This [joint] definition of 'motion-change' and 'rest' is based upon the theory of the atom,¹⁶ upon the continuous succession of [atomic] moments, and upon the continuous succession of motion-changes for the indivisible atoms.

The philosophers hold that 'motion-change' is an 'initial completion' for anything that is 'potential',¹⁷ from the aspect of its being a 'potentiality'. An explanation of this doctrine is that 'motion-change' is a quality that can be attained L 223 by a body, [i.e., a body can begin 'moving'] so the attainment of 'motion-change' by a body T 102 is a [preliminary, initial, kind of] completion for it. [This is so] because the completion of a thing would be [the completion of] what is in it as a 'potentiality'; and then that ['potentiality'] passes out into 'actuality'. Motion-change is like that.

'Motion-change' has a commonality with other [kinds of] 'completions' from this standpoint. But 'motion-change' differs from other

¹³ MS gl: But rather, [this is] an expression for [the body] being the substrate for the relation.

¹⁴ Glosses in the MS: 1. I.e., the 'place-where' [al-ayn] becomes existent in an 'atomic moment' [ān], without there being a 'time duration' [zamān].

2. By an 'atomic moment' is meant the amount of an indivisible atomic part.

3. [Gl is also in L] They held that 'an [instantly generated place of] being' is a genus for four species, comprising 'motion-change', 'rest', 'joining' and 'separation'.

¹⁵ MS gl: But rather, it would be a '[place of [instant]] being' [kawī].

¹⁶ MS gl: Because it is based upon the sequence of two 'atomic moments', that [in turn] requires that 'time duration' be an arrangement [tarkīb] of indivisible atomic moments, that [in turn] requires that 'motion-change' and 'spatial distance' [masālah] be a composition of indivisible atoms, since 'time duration', 'motion-change', and 'spatial distance' are all composites.

¹⁷ [mā huwa bi-al-qūwah]. MS gl: I.e., "for something that exists as a 'potentiality'" meaning a moving body. The motion would not be [the body's] 'completion' from every aspect, because it is not a completion with respect to its corporeality, but rather, it is a 'completion' from the standpoint that it is a 'potentiality'.

[kinds of] 'completions', from the standpoint that the real nature of 'motion-change' is nothing more than an 'arrival' [i.e., by a body] 'at the other' [i.e., another 'stage', or, another 'place of instant being']. Whatever is of that sort will have [the following] two properties.

a. In [the body's circumstances] there must be a goal

1. toward which [the motion-change] is self-directed, and

2. which can be attained, so that the forward progression is a progression to it. Thus, the 'attainment' of that toward which [the motion-change] is progressing would be a 'second perfection',¹⁸

b. As long as that self-directed progression continues as such, it will continue in some degree to be a 'potentiality'. For the body in motion is a moving body in actuality only if it does not reach the goal; because if it reaches its goal, then it is a completed arrival, not a [continuing] self-directed forward progression. As long as it is [a self-directed forward progression], then some portion of it will remain as a 'potentiality'.

Thus, 'motion-change', when its occurrence has become an actuality, [i.e., when motion-change has begun] is linked with two 'potentialities', the first being the potentiality of the remaining motion-change, and the second being the potentiality of [reaching the goal] being approached. Furthermore, each of these two [potentialities], the [continuing] motion-change and that goal being approached, constitute a 'completion' for the body in motion, except that the motion-change is an 'initial completion', and the goal being approached is a second 'completion'. When motion-change takes place¹⁹ both of the two are potential 'completions'.

Regarding the 'second completion', [that is, the goal reached], that is obvious.

But regarding the 'initial completion', that is, [of the] 'motion-change', [that fact is true] since,—when the occurrence of motion-change has become realized [then its being only 'potential'] would no longer be a present reality in that nothing of [the motion-change] would remain [only] 'potential',—it then becomes clear that the 'motion-change' would be the initial completion for something [that had been only] potential, from the standpoint of its potentiality.

¹⁸ MS gl: Because it comes later [muta'akhkhir] than the [beginning of the] motion-change.

¹⁹ MS gl: I.e., the beginning of the motion-change.

Nevertheless, [motion-change] was qualified by [Baydawi's] statement, "... from the standpoint of potentiality", because motion-change is not an initial completion of 'potentiality' from every standpoint. It is not an initial completion of [what is potential] from the standpoint of something actual;²⁰ but rather, it is an initial completion of something [that had been only] potential, from the standpoint of its potentiality [namely, the time when motion-change would begin].

In [his qualifying statement] [Baydawi] avoided [mention of] the 'substantial form'²¹ MS 109b because [the substantial form] would be a 'completion' for a body in motion that has not reached its goal, and thus the 'substantial form' would be an 'initial completion' of something potential. But it would not be an initial completion from the standpoint of its own potentiality. The 'substantial form' would not be an initial completion of something potential from this special standpoint; but rather, the 'substantial form' would be an initial completion of [what is potential] in an absolute sense, equally whether [the situation] would be from the standpoint of its being [only a] potential [situation],²² or from the standpoint of [the situation] being something actual.

Our author [Baydawi's] statement is: "In summary, this definition approximates what the early philosophers had said, namely, that motion-change is a gradual passage from potentiality into actuality."

An explanation [in proof] of this delimiting definition is that an existent entity cannot possibly be something 'potential' from every standpoint. If [the case should be] otherwise, then [both the entity's presence within] existence and its having [an instant generation of]

²⁰ MS gl: I.e., the [actual] goal.

²¹ [al-ṣūrah al-naw'īyah] Mourad Wahba's *al-Muḥjam al-Falsafī/Vocabulaire Philosophique Arabe* identifies this as the 'substantial form', quoting from Jurjani's *Ta'rīfat*, "a simple substance whose existence in actuality is not complete without the existence of what inheres in it", meaning this 'substantial form'. Another Arabic term, [al-ṣūrah al-jawharīyah], one used by Ibn al-Haytham, is given the same English terminology by Wahba, with a fuller Arabic definition.

Bernard Wueellner's *Dictionary of Scholastic Philosophy* includes among the definitions of 'substantial form' the following: "the intrinsic incomplete constituent principle in a substance which actualizes the potencies of matter and together with the matter composes a definite material substance or natural body; ... the specific differentiating factor in diverse kinds of essences ..."

²² MS gl: For example, the goal [being approached] and the body [that is approaching it].

being, [both aspects] as potential, would also be [together] in potentiality. So then 'potentiality' would be L 224 [simultaneously]

a. something presently existing, and

b. something not presently existing, but that is a contradiction.

Rather, [an existent entity] must be actual from every aspect, or [at least] from some aspects.

The passage of everything that is in potentiality out into actuality happens either instantly, which is called ['instant generation of] being',²³ or, gradually, which constitutes 'motion-change'. Motion-change²⁴ [then] is an attainment [i.e., of actuality], or, it is an origination [within actuality], or, it is a passage [i.e., from potentiality] out into actuality little by little, or gradually, not instantly. And this meaning approximates what has been stated.

Aristotle had criticized this definition, for he said that an interpretation of this phrase, "little by little, or, gradually", would be impossible except by [the concept of] time duration, which is defined by motion-change, so a circular argument would be implicit.²⁵ Moreover, our expression, "not instantly", would be impossible to define except by 'instantaneous', which is defined by the [atomic] moment, which is defined by time duration, which is defined by motion-change, so argument in a circle is implicit.

²³ [kawn] L 224 gl: As in the conversion [inqilāb] of water to air: the airlike form [al-šūrah al-hawā'iyah] was in the water as potentiality, and then exited out to actuality instantaneously.

²⁴ MS glosses: 1. That is, the definition of motion-change.

2. Each one of these [following] terms is to enrich the concept of 'motion-change'.

²⁵ Aristotle seems to have had difficulty expressing the conception of a limited and gradual process of time as well as motion. His exact statement regarding 'gradualness' as characterizing the transition-change from 'potentiality' to 'actuality' could not be located in his *Metaphysics*. His struggle with the concepts of motion[-change] and time may be seen in the following sample quotations: [from Aristotle's *Works*, ed. W.D. Ross]

1) "... it is hard to grasp what movement is" *Metaphysics* 11:9:20 (also in *Physics* 3:2:30).

2) "The latter sort of process, then [i.e., past, or, perfect tense] I call an actuality, and the former [i.e., present, or, imperfect tense] a movement." *Metaphysics* 9:6:34.

3) "For substances are the first of existing things, and if they are all destructible, all things are destructible. But it is impossible that movement should either have come into being or cease to be (for it must always have existed), or that time should. For there could not be a before and an after if time did not exist. Movement also is continuous, then, in the sense in which time is; for time is either the same thing as movement or an attribute of movement. And there is no continuous movement except movement in place, and of this only that which is circular is continuous." *Metaphysics* 12:6:5-11.

The Imam [Ibn Sina] replied that a [single] conception [including] the quiddity [both] of ‘instantaneity’ and of ‘gradualness’ would be something axiomatic, and as such it would occur to someone who has had no awareness of the discourses of the philosophers about the ‘moment’ and ‘time duration’, so, the [charge that it would be a] circular argument is refuted.²⁶

But this requires consideration, because for both the quiddity of ‘instantaneity’ and the quiddity of ‘gradualness’ to be axiomatic [as a single conception] would be impossible [logically].²⁷

Baydawi said:

L 224, T 102

Gradual motion-change in quantity, quality, position, and place-where

a. Now, [gradual motion-change] may take place in relation to ‘quantity’. It is exemplified by ‘expansion’ and ‘contraction’, namely, the increase and decrease of size without any addition to or separation from, and by ‘growth’ and ‘withering’, these latter two being an increase and decrease that are internal in each case.

b. [Gradual motion-change may take place] in relation to ‘quality’, being exemplified by the darkening of grapes, and the heating up of water, and this is called ‘change’.

c. [Gradual motion-change may take place] in relation to ‘position’ [of one kind or another], being exemplified by the motion-change of the celestial spheres, and it is called ‘cyclical motion-change’.

d. [Gradual motion-change may take place] in relation to ‘place-where’, being exemplified by movement from one location to another, and it is called ‘transition’.

e. But [gradual motion-change] does not take place in relation to ‘substance’, because its occurrence would be instantaneous, this being called [‘instant] generation’ [or, ‘instant being’].²⁸

²⁶ In his *Isharat* 2:333 ff. Ibn Sina, in discussing the powers of the terrestrial human soul, speaks of the ‘sense of coordination’ [or, traditionally, the ‘sensus communis’], affirming that a) it can receive more than a single message of perception from the body’s senses, and b) it can organize, evaluate and recall these messages for meaningful intellectual activity and decision.

²⁷ MS gl: Because the simple claim that something is intuitive does not imply that that thing would be absolutely self-evident.

²⁸ Note terms: ‘change’ [istihālah]; ‘cyclical motion-change’ [ḥarakah dawrfiyah]; ‘instant generation/being’ [kaww].

f. Nor does gradual motion-change take place] in relation to the rest of the [accident] categories, because they are subordinately consequent to their substrates.

Isfahani says:

L 224, T 102, MS 109b

Gradual motion-change in quantity, quality, position, and place-where

One should know that what is meant when [the philosophers] say that [gradual] motion-change takes place in a given category is that a body in motion is moving from one species of that category MS 110a to another of its species, or from one kind of the species of that category to another kind of that species.²⁹

The meaning in their statement that [gradual] motion-change takes place in a given category is not that that category is a genuine subject-substrate for the motion-change. Nor [does it mean] that through the medium of the category [gradual] motion-change would come to a substance, in the sense that the [gradual] motion-change would subsist first in the category, and then through its medium would become accidental to the substance. Nor [does it mean] that the category would be the genus for the [gradual] motion-change, if that should become real.³⁰

Our position is that the [accident] categories in which motion-change occurs are four: 1. quantity, 2. quality, 3. position, and 4. place-where.

a. Gradual motion-change in [the category of] 'quantity' takes place from two standpoints:

1. one standpoint being 'expansion' and 'contraction';
2. the other standpoint being 'growth' and 'withering'.

(1.) Expansion is an increase³¹ in the size of the body without anything else being added to it. Contraction is a decrease L 225 in the size of a body without any separation of a part from it. As

²⁹ MS gl: An example of the transition from one species to another species would be like the transition of a body that is black to a white species, while an example of the transition from one kind to another kind would be the transition of a body that is intensely white to a white less intense.

³⁰ MS gl: As if we should say that mankind belongs in the category of substance, in the sense that substance would be the genus for him, not the category, for [substance] is not a genus of [gradual] motion-change.

³¹ MS gl: Gradually.

for the admissibility T 103 of the occurrence of expansion and contraction, that is because primal matter does not have within itself any size,³² because its having a size would be because of a close association with form. So then, it is admissible that no size be specifically assigned to its essence, aside from whether or not it would be too large or too small for it; and thus, it would be admissible for it to remove a small size and put on a large one, or vice versa.

Two examples will demonstrate the actual occurrence of expansion and contraction.

a) The first of the two [examples] would be the entrance of water into a flask inverted upon water. A full statement of this [example] is that if the flask should be [made void by being] sucked [out], and then is inverted upon water, the water will enter into it, the entrance of the water into it not being conceivable except in two ways.

1) [The first of the two [ways] is that if the flask is [made void by being] sucked out, then the air goes out from it and the place of the air that has gone out remains void, and so the water enters it when [the flask] is inverted [upon water].

2) The second [way] is that the volume of the air remaining in it after the sucking out would increase, because of the sucking out, in order to occupy the place, and then would contract either because of the water's coldness,³³ or because of its own nature when [the water] ascends [into it], and so it would return to its natural size.

The first [way] is impossible, because a void would be impossible, so the second way is indicated, and thus, expansion and contraction occur.

b) The second example is the cracking of a vessel when water is boiled [in it]. A full statement of this is MS 110b that when a vessel is filled with water and its top is closed and it is boiled, then, as it is boiling, it splits, the splitting being conceivable only for three reasons:

1) the first reason is because of the movement of what is in it to the outside;

³² MS gl: And that which has no size in the delimiting definition of its essence becomes relative to all extensions equally.

³³ L & T: bard; MS: burūdah.

2) the second [reason] is because of the movement of what is outside of it to the inside;

3) the third [reason] is because of the increase in size of what is in it.

The first two [reasons] are impossible:

(1) the first reason is impossible because if that movement should be to any [single] direction, then the vessel would have to move along with it because its moving would be easier than its splitting; and if [the movement] should be in [several] directions, then the implication would be that conflicting actions would be issuing from the homogeneous nature [i.e., of water].³⁴

(2) As for the [impossibility of the] second [example], [that is] because there is no hole in [the vessel], so it would be impossible for anything outside to come inside it.³⁵

(2.) 'Growth' is the increase in size of a body because of the addition of another body in such a way that [the second body] made openings in [the first body] and then [the second body] entered through them and became like the [first body's] nature with an increase in all three³⁶ dimensions according to a natural symmetry.³⁷ 'Withering' is the opposite of [growth], being a decrease in the size of a body in all three dimensions because of a separation [and loss] of some of its particles. The occurrence of growth³⁸ and of withering³⁹ is obvious, and there is no need at all for them to be demonstrated.

b. Gradual motion-change occurring in [the category of] 'quality' is exemplified as a transforming change that is sensately perceived: as when grapes darken and when water is heated, for we observe how cold water becomes hot gradually and hot water becomes cold gradually. Gradual motion-change in [the category of] quality is called 'change'.

³⁴ MS glosses: 1. His expression, "from the homogeneous nature" would be complete [in meaning] only if the water in the vessel has one nature; 2. Because the nature of the particles of the water is homogeneous [mutashābihah].

³⁵ MS gl: So the third (3) is indicated, and that is the increased volume of what is in [the vessel].

³⁶ Only the MS adds 'three' here; with a gloss: I.e., length, breadth and depth.

³⁷ MS gl: [Baydawī] took precaution against [confusion with an unhealthy] swelling [waram], for that would not be in accordance with a natural symmetry [tanāsub] of the body.

³⁸ MS gl: As in little boys attaining to young manhood.

³⁹ MS gl: As with the aged.

Let no one refuse to grant that when cold water becomes hot that there would be an 'alteration' in this L 226 [particular] kind of quality such that gradual motion-change would be implicit within [the category of] quality. There would be gradual motion-change within the [category of] quality only if the appearance of heat in it should not be in the manner of 'latency'⁴⁰ and 'emergence',⁴¹ as it is in the doctrine of those who teach 'latency and emergence'.

They say that within bodies none of the elements are to be found as 'simple and pure', but rather, every body is a mixture of all natural factors, although [the body] is called by the name of that which predominates in it. If one should come upon a body in which the genus is submerged, and then what is submerged should make its appearance from 'latency' into 'emergence', and should oppose that which predominates [in the body] and become mixed with it, it would then be perceived as a totality by the senses so that it would not be possible to distinguish one unit from another, and thus it would seem that there is MS 111a something between the heat and the cold.⁴²

Our position is that we are certain that the doctrine of 'latency' and 'emergence' is false, in summary, because sense perception declares these two [notions] to be false. For [example], if water should have fiery particles in it, and if the skin should contact [the water], then [the alternatives] would have to be either

1. that the surface of the skin would contact those particles in their state of latency, or
2. that it would not do so; and both of these [alternatives] would be false.

The first [alternative] (1.) is false because, if the skin should contact [the latent fiery particles] then it would have to have sense perception of their hotness, just as it has sense perception of them when the water becomes hot, otherwise, sense perception would declare [the theory of the presence of fiery particles] to be a falsehood.

⁴⁰ MS gl: I.e., being covered over [sutūr].

J. van Ess' article, "kumūn", in *En-I-2* v. 5, p. 384 speaks of this as being a tenet of al-Nazzam and his followers, and of its being traceable to Stoic ideas.

⁴¹ MS gl: In the sense of 'appearance' [zuhūr].

The pair of opposites here has been described previously as 'latency and appearance'. Now Isfahani is describing the second of these terms as an appearance 'out from', that is, an 'emergence'.

⁴² Reading with L, T and MS Garrett 989Ha: [yukhayyal hunāka amrun bayna] The MS reads: [yatakhayyal hunāka amrayn].

The second [alternative] (2.) is false, because, since water is fine, to separate the link of some particles of it with others would be easy, and especially so to separate its link with that factor with which its link is unnatural, and the union of water with fire is unnatural.

Thus, a theory might be held that the heat in hot water has not come by way of a 'change' nor by way of an 'emergence' [of heat], but rather, that the water is heated up only because of the permeation of fiery particles within it from the fire next to it.

To this [theory] the reply would be that if the heat of a body, for instance, should be on account of a shower of fiery particles coming upon it from the outside, then the fiery particles that emerge within it would be equivalent to the fiery particles coming upon it [from outside]. But that is not the case. For imagine how if a tiny fire, as the flame of a lamp, should touch a mountain of sulphur, then the whole [mountain] would become a fire and would be burning.

c. Gradual motion-change [occurring] in [the category of] 'position' is such that the 'position' of an agent that is moving, entirely apart from the question of its location, will gradually be exchanged, as [it is in] the motion-change of a celestial sphere.⁴³ This [gradual motion-change] is called 'cyclical'.

A theory might be proposed that 'every part' [i.e., = 'totality-a'] of a celestial sphere is moving within a [certain] 'location',⁴⁴ and 'everything of which every part is moving' [i.e., = 'totality-b'] is within a [certain] 'location',⁴⁵ then the 'whole of it' [i.e., = 'totality-c'; i.e.,

⁴³ M. Saeed Sheikh, in his *Dictionary of Muslim Philosophy*, defines this term as follows: [falak/aflāk] "The celestial sphere surrounding the world and revolving around the earth as its centre. According to the cosmogony current with the Muslim philosophers, there are in all nine such spheres surrounding each other like the peels of an onion so that the concave side of the shell of the surrounding sphere touches the convex surface of the one surrounded by it. All these spheres being transparent, one can see through them from the lowest to the highest. The nine spheres in the descending order of their remoteness from the earth are: 1) the sphere of the primum mobile [al-falak al-aqṣā]; 2) the sphere of the fixed stars [al-kawākib al-thābitah]; 3) . . . Saturn; 4) Jupiter; 5) Mars; 6) the Sun; 7) Venus; 8) Mercury; 9) the Moon."

A brief quote from his definition of the Planets [al-kawākib al-sayyārah] [which include the Sun and Moon] follows: "It is also to be noted that with the Muslim as with the Greek philosophers of antiquity every planet is studded in a crystalline, i.e., transparent, celestial sphere like a gem in a ring so that the movement of a planet is really the rotation of its whole sphere."

⁴⁴ This being the minor premise.

⁴⁵ MS gl: This being the major premise.

'c' = 'totality-b' that is inclusive of 'totality-a']⁴⁶ would be moving within a [certain] location.

To this [theory] it would be replied that a celestial sphere has no 'part' in actuality, such that [the part] would move.⁴⁷ But even if it should be assumed that [the celestial sphere] would have parts, [then still] they would not leave their locations, but rather, that part [i.e., of the celestial sphere] in contact with part of the whole [sphere's] location would separate from the part of the whole [sphere's] location, if the whole should be in a location.

The location of the part is not part of the location of the whole [sphere], but rather, part T 104 of the location of the whole would be part of the location of the part, if the assumed part is in contact⁴⁸ with part of the location of the whole. That is so because part of the location of the whole [sphere] would not surround the [assumed] part,⁴⁹ but the [complete] location would surround it.

It is not the case that if every part⁵⁰ MS 111b having contact with a part of the location of the whole should separate from a part of its own location, this being a part of the location of the whole [sphere], then the whole [sphere] would separate from its own location. Because there is a difference between when we say, "every [single] part", and when we say, "the totality of [all] the parts." That is so because our expression, "every [single] part", might be half of the totality, but the totality would not be half of itself, because the 'totality' [of the parts] has a real nature that is clearly distinguishable from L 227 the real nature of 'every [single] one' of the parts.

d. [Gradual motion-change] in the category of 'place-where'⁵¹ is exemplified by movement from one place to another, in that the

⁴⁶ MS gl: Thus implying an exchange of location.

⁴⁷ MS gl: I have said [qultu] that the movements of parts, from their locations [amkinatihā] and their place-where [aynihā], do not imply that their totality would be so; because the universal is of two species, unitary [afrādī] and totality [majmūʿī]. Their properties [ahkāmuhā] may be identical [muttahiḍah] or different [mukhtalifah]. Here they are different, not identical. [From Jurjani's commentary on Ijī's book, *al-Manaqiḥ*.]

⁴⁸ MS gl: If it should not be in contact, as the lowest part and the middle part, then it would not be so.

⁴⁹ MS gl: Because the location of the part would be another part, to the right and to the left and below [the part].

⁵⁰ MS gl: What is meant by 'every' [kull] here is 'every [single] part', not the 'whole [as totality]' [majmūʿī] of the parts.

⁵¹ L 227 gl: 'Motion-change' in [the category of] 'place-where' [al-ayn] is 'transition' [al-naqlah], that a scholar would [generally] call 'movement' [harakah]. For

location of the body in motion is exchanged [for another location] through that motion. This is called 'transition'.

e. In the [category of] 'substance' there is no gradual motion-change, because the 'occurrence' of 'substance' is instantaneous,⁵² being called ['instant] generation' [or, 'instant being']. That is so because 'substance' is either

1. simple, or
2. compound.

(1.) A simple substance becomes existent instantaneously and is destroyed instantaneously, and thus between its [state of] absolute potentiality and its [state of] absolute actuality no intermediate [stage of] completion⁵³ exists, because the real nature of 'substance' is not capable of increment⁵⁴ and diminution. This is because if [the real nature of substance] should be capable of increment and diminution, then the case necessarily would be either

- a) that some kind of substance would remain between the increment and the diminution, or
- b) that it would not remain.

If (a) it should remain, then the real nature of substance would not change, but rather, only some accidental quality of it would change; so, this would be a 'transformation',⁵⁵ not an 'instant generation'.

But if (b) no kind of substance should remain, then the case would be that the increment would enter into some other substance. And thus, in every [atomic] moment assumed to be in the midst of the increment, there would be another substance originated, and the preceding substance would be destroyed. So, between the one substance⁵⁶ and the other substance,⁵⁷ there would be the possibility

when the Mutakallimun used the expression, 'movement', [without modification,] they meant 'spatial motion-change' [al-ḥarakah al-aynīyah], [properly] called 'transition'. This is very near the usages of the etymologists also; and sometimes [the term, 'motion-change'] is applied by them to the category of 'position', but not to the categories of 'quantity' and 'quality'. [From Jurjani's *Sharḥ Maʿāqif*, of al-Ijī.]

N.B. Readers are reminded that [ḥarakah] as a rule in our translation is being translated 'motion-change', to include the two aspects: 'movement' and 'change'.

⁵² MS: [daf'i].

⁵³ MS gl: I.e., one that would be potential from one aspect and actual from another aspect, to the extent that it would be something that moves.

⁵⁴ MS gl: [I.e.], increase [izdiyād].

⁵⁵ MS gl: I.e., motion-change in [the category of quality [kayf]].

⁵⁶ MS gl: This being the beginning of the increment and diminution.

⁵⁷ MS gl: This being the ending of the increment and diminution.

of various kinds of substance without end, as in the category of 'qualities'. But that would be impossible in [the category of] 'substances', entirely apart from [the category of] 'qualities'.

An explanation of the impossibility of this⁵⁸ in [the category of] [simple] 'substance' is that not one of the simple substances that succeed one another in the [atomic] moments exists within a time duration. Otherwise, there would not occur any motion-change⁵⁹ at the time of the motion-change, because continuance in a time duration would preclude motion-change. If all of [the simple substances] should have being within an [atomic] moment, then the case would necessarily be either

c) that, between two substances that succeed one another, each of them being within an [atomic] moment, there would be a time duration in which nothing of the two successive substances would be existent, or

d) there would not be [such a time duration].

The second alternative (d) would require the succession of [atomic] moments, which would be impossible. And from the first alternative (c) there would be the implication that the body in motion itself would not be present at the time of the motion-change,⁶⁰ MS 112a which is impossible by inherent necessity.

The explanation why it would not be impossible in the category of 'qualities' is that, on the assumption that between each two qualities succeeding one another, each being within an [atomic] moment, there would be a time duration within which nothing of these two [qualities] would be present, there would be no implication of impossibility in such a case. This is because the body in motion itself would be the subject-substrate of the qualities, and it would be admissible for the subject-substrate of the qualities to continue [in existence] entirely apart from the qualities.⁶¹

[This is] in contrast to substances,⁶² for the body in motion-change would be [either] the substance that precedes, or its matter.⁶³ On both assumptions no time duration for the absence of the two suc-

⁵⁸ MS codes the antecedent: [i.e., of there being various kinds of substance without end].

⁵⁹ MS gl: i.e., exchange of substance during [fi ḥāl] its motion-change.

⁶⁰ MS gl: i.e., at the time of ITS motion-change.

⁶¹ MS gl: i.e., [from] a specific quality.

⁶² MS gl: Because neither a body nor its matter would have existence apart from the form.

⁶³ MS gl: i.e., primal matter [hayūlaʾ].

cessive substances would remain, and thus, the body in motion-change would not be something existent.⁶⁴

(2.) As for compound substances, [the fact that there is no gradual motion-change in them] is because

a) they are made nonexistent through a part of them being made nonexistent,⁶⁵ and,

b) every part of them is made nonexistent instantaneously, because of what has been said,⁶⁶ and, so

c) compound substances become nonexistent instantaneously. Thus, [gradual] motion-change does not take place in [compound substances].

f. Nor does [gradual] motion-change take place within the five remaining [accident] categories;⁶⁷ indeed, they are subordinately consequent to their substrates.

1. Regarding [the case of] a 'governing adjunct'⁶⁸ [there would be no gradual motion-change in it] because its nature is not independently conceivable, and it is subordinately consequent to its substrate.⁶⁹ So, if its substrate [i.e., the 'delimiting adjunct'],⁷⁰ should be receptive to motion-change, then the 'governing adjunct' would also be receptive to motion-change. This is because, if it should continue in a single state while its subject-substrate was undergoing change, then the 'governing adjunct' would be something independently understandable, but the assumption has been to the contrary.

2. Likewise, [the category of] 'time-when' is subordinately consequent to its principal [agency]. L 228 Thus, if [gradual] motion-change should take place within its principal [agency], then [gradual] motion-change would take place in [the category of] 'time-when', because of the subordination [of 'time-when'] to [its principal agency].

⁶⁴ MS gl: While we have assumed differently.

⁶⁵ The scribe of L inadvertently elides [fa-li-'annahā tan'adam] to read, [fa-lā tan'adam].

⁶⁶ MS gl: Meaning his expression, "A simple substance becomes existent instantaneously and is destroyed instantaneously."

⁶⁷ MS gl: These being 'adjunction', 'time-when', 'habit as possession', 'activity', and 'passivity'.

⁶⁸ MS gl: "Governing adjunct" [al-muḍāf]. What is intended here by [the case of] 'a governing adjunct' is the 'adjunction' [iḍāfah] itself.

⁶⁹ In this paragraph Isfahani appears to take the two terms of the adjunctive relationship [al-iḍāfah], namely, the 'governing adjunct' [al-muḍāf] and the 'delimiting adjunct' [al-muḍāf ilayhi], and to treat them as 'that which inheres' and the 'substrate' in which the former inheres, respectively.

⁷⁰ Delimiting adjunct [al-muḍāf ilayhi].

3. Regarding the [category of] 'possession as habit',⁷¹ it becomes a fact instantaneously, so, [gradual] motion-change does not take place in it.

4.-5. As for the two categories of 'activity' and 'passivity', [gradual] motion-change in them is not conceivable. That is because, [for example], if a certain thing should transit from [the state of] 'cooling down' to [that of] 'heating up', then the case would be either that the [state of] 'cooling down' would continue in the presence of the [state of] 'heating up', or that it would not.

The first alternative is invalid, because the [state of] 'cooling down' is directed toward cold, while the [state of] 'heating up' is directed toward heat, and it is impossible for one thing in one time duration to be directed toward [both of] two opposites. Likewise, the second alternative is invalid, because, since the [state of] 'cooling down' would not be continuing in the presence of the [state of] 'heating up', and the [state of] 'heating up' would exist only where the [state of] 'cooling down' had stopped, between these two [opposing states] there would be a time duration of 'rest' [and not motion-change]; otherwise, the implication would be that it was a case of the [infinite] succession of [atomic] moments.

Baydawi said:

L 228, T 104

General factors necessarily involved in gradual motion-change

a. All gradual motion-change⁷² necessarily involves six general factors.

1. That [beginning point] from which there is motion-change;
2. That [ending point] toward which [there is motion-change];
3. That [environmental category] in which [there is motion-change];
4. That [body in motion] to which [the motion-change pertains];

⁷¹ [al-jidah; = dhū jidah]. MS gl: i.e., possession [as habit] [al-milk].

⁷² In the previous topic, 'The Case of Place-where', Baydawi has brought out the distinction between 'instantaneous' generation of being, with its parallel notion of instantaneous change, and the factor of 'gradual' motion or change. The Arabic term [ḥarakah] includes the two notions of 'motion' and 'change', and with this addition of 'gradualness', we have been translating the single term [ḥarakah] usually as 'gradual motion-change'. However, the added English word 'gradual' need not always accompany the translation.

5. That [cause] by means of which [there is motion-change];⁷³ and

6. The time duration [of the motion-change].

b. The individuation of a motion-change is realized only by the unity of

1. its subject-substrate [i.e., the body in motion],

2. its time duration, and

3. [the environmental category] in which it takes place. This is because a single [body] may be in motion-change within two aspects in two [different] time durations, and it may transit and grow in one time duration.⁷⁴ When that [information] is [brought together and] united, then the beginning and ending [points also] would be united without doubt. However, no consideration need be given to whether the agent causing the motion-change would be a unity or a plurality.

c. [Gradual motion-change] varies in its kind accordingly as there is a variation in the kind of

1. [beginning point] from which it comes and

2. [ending point] to which it proceeds, as in descent and ascent, and

3. [environmental category] in which it takes place, as when something white starts to become yellow, then red, then black, or, [becomes] light pistachio green, then darker leaf green, then black.

d. However, no consideration need be given to any variation in the kind of

1. agent causing the motion-change, or

2. [its] subject-substrate [i.e., the body in motion], or

⁷³ Note the terms in use: 1. from which [mā minhu], 2. toward which [mā ilayhī], 3. in which [mā fihi], 4. to which [mā lahu], 5. by means of which [mā bihi].

⁷⁴ Substituting "time duration" for the actual reading, which is 'in one moment' [fi ān wāhid] here in Baydawi's text. "Time duration" is supported by L, T, MS Garrett-Yahuda 3081 [f. 120b:5], MS Garrett 283B [f. 21a:12] and MS Garrett 989Hb [f. 19b:1], although the script in the latter has clearly been changed from [ān] to [zamān]. Although MS Garrett 989Hb [finished 874 A.H.] was copied before MS Garrett 989Ha [finished 875 A.H.] by the same scribe [Muhammad ibn 'Isa ibn 'Alī], the script change apparently was made in order to make Baydawi's term correspond to Isfahani's term [zamān].

The context requires the concept of 'one time duration' [zamān wāhid] in order to provide for both 'transition' and 'growth', thus the illogical one 'moment' must be taken as a very early error in the manuscripts of Baydawi's text. See also this passage in Isfahani's text for the gloss from the MS regarding this.

3. [its] time duration, if a variation in the time duration should be theorized, since it is admissible that [these] differing factors would have commonality in a [single] effect, accident, or substrate. Their variation in kind is in consideration of the environmental category in which they take place, as transition, change, or growth.

e. The opposition [in these variable factors of motion-change] does not result from any opposition by the (d1) agent causing the motion-change, or by the (d2) time duration, due to what has been previously stated, or by the (d3) environmental category in which they exist, since ascent would be the opposite of descent although the path would be one. Rather, [their opposition] results from the [opposition] between (c1) [the beginning point] from which and (c2) [the ending point] to which [there is motion-change]. T 105 This takes place either in the essence, as becoming black and becoming white, or in an accidental quality, as the ascent and the descent. The beginning and the ending [of the process of motion-change] are two mutually similar points, and for each of them 'opposition' has been made an accidental quality, in that one of the two became a starting point and the other an ending point.

f. Furthermore, a division of [gradual motion-change] may be made by a division

1. of the time duration, and by a division
2. of the spatial distance, and
3. of the body in motion.⁷⁵

Isfahani says:

L 228, T 105, MS 112a

General factors necessarily involved in gradual motion-change

a. All gradual motion-change necessarily involves six MS 112b general factors:

1. That [point] from which there is motion-change, namely, its beginning;
2. That [point] to which motion-change proceeds, namely, its ending;⁷⁶

⁷⁵ L has omitted this third factor, while it is present in T, MS Garrett 283B, and MS Garrett 989Hb.

⁷⁶ MS gl: Motion-change requires the positing of a beginning and ending actually only in a direct (straight line) motion-change. But in the circular motion-change

3. That [environment] in which the motion-change takes place, namely, the 'category' in which the motion-change occurs, as 'quantity', 'quality', 'position', or 'place-where';

4. That [factor] to which the motion-change pertains, namely, the 'body in motion', which is the 'subject-substrate' for the 'motion-change';

5. That [factor] by means of which there is motion-change, namely, the 'cause of the motion-change'; and

6. The time duration [of the motion-change].⁷⁷

b. The individuation of a motion-change is realized only through the unity of

1. its subject-substrate, that is, the 'body in motion'. For, if the subject-substrate should be multiple, then the motion-change would not be a single individual factor, because it would be impossible for an accident as a single individual factor to subsist in two subject-substrates.⁷⁸

And [the individuation is realized only] through the unity of

2. its time duration, for if the time duration should be multiple, then the motion-change would not be a single individual factor. Thus, if a body should transit from one location to another, or should change L 229 from whiteness to blackness, within a time duration, and then [again if] it⁷⁹ should transit from the first location to the second location, or should change from whiteness to blackness, then neither the first transition nor the first change would be identical to the second. This is because of the impossibility of a return for what has been made nonexistent, since the first transition

of the celestial spheres these are posited only by assumption, since [in that case] there is no position [wad'] to be a starting and ending point for motion-change except by assumption.

⁷⁷ MS gl: Because all motion-change would be in a time duration by inherent necessity.

⁷⁸ MS glosses: 1. [I.e., two] or more;

2. Because motion-change in itself is a factor that has the possibility of existence, so, inevitably it will have an 'actively effective cause' ['illah fā'ilah]. [Gloss #2 is from Jurjani's *Sharh Mawāqif* [al-Ijī].]

Jurjani mentions this latter 'cause' in his *Ta'rifat* while discussing the 'cause' ['illat al-shay']: . . . "The cause of existence [is such] that either a) the 'effect' is made existent by it, that is, [the cause of existence] is the 'effective cause' for the 'effect' and causes it to be existent, this being the 'actively effective cause' [al-'illah al-fā'ilīyah], or b) it is not such . . ."

⁷⁹ MS gl: That is, [if] then the very same body should transit from the very same first location a second occasion [marrah] in a second time duration.

and the first change became nonexistent at the expiration of the first time duration.⁸⁰

And [the individuation is realized only] through the unity of

3. that [situation] in which [the motion-change] takes place, that is, the '[environmental] category'⁸¹ in which the motion-change takes place; because, if the [environmental] category should be multiple, then the motion-change would not be realized as a single individual factor.

(2.) [Baydawi's] statement, "Since a single [body] may be in motion-change in two aspects within two [different] time durations", assigns a cause to the logical notion of the unity of a time duration in the individuation of the motion-change. A full statement [of that assignment] is that a single body in motion may be in motion-change in two aspects within two time durations in one spatial distance. Therefore, the motion-change would be multiple when the time duration would be multiple, even though the subject-substrate [i.e., the body in motion] should be single and the environmental category within which the motion-change takes place should be single. Thus, the motion-change would be a unity through the unity of the time duration.

(3.) Baydawi's statement, "And it may transit⁸² and grow⁸³ in one time duration",⁸⁴ assigns a cause to the logical notion of the unity of the environmental category in which the motion-change takes place in the individuation of the motion-change. A full statement of it is that a single body in motion-change in one time duration may transit from one location to another location and may grow.⁸⁵ Thus, both the subject-substrate [i.e., the body in motion]

⁸⁰ MS gl: That is because motion-change is fluid [in nature], not fixed [sayyālah ghayr qārrah], and it corresponds to [its] time duration, so it becomes nonexistent when its time duration becomes nonexistent, [both] in an absolute sense.

⁸¹ MS gl: Namely, the four [categories]: quantity, quality, place-where, and position, as previously stated.

⁸² MS gl: A reference to the category of 'place-where' [al-ayn].

⁸³ MS gl: A reference to the category of 'quantity' [al-kamm].

⁸⁴ At this point in manuscripts of Baydawi's text the term used is 'moment' [ān]. See the note at that point. The gloss cited below probably refers to these manuscript copies. Manuscripts of the Isfahani text agree in the usage of [zamān].

MS gl: In some manuscript copies [nusakh] [the reading is]: 'in one moment' [fī ān wāhid]. This is an error, since 'transition' and 'growth', because of their being two [different] motion-changes, may not take place 'in one atomic moment'.

⁸⁵ MS gl: I.e., it may move from one quantity to another quantity [yataḥarrak min kamm ilā' kamm].

would be single, and the time duration would be single; but the motion-change would not be a single individual factor, because the environmental category in which the motion-change takes place would be multiple.

Whenever the three factors would be united, that is, a) the subject-substrate,⁸⁶ b) the time duration, and c) the environmental category in which the motion-change takes place, then the beginning and the ending points would be united without doubt, for the unity of the beginning and ending points MS 113a is concomitant to the unity of the three factors.

However, the unity of each one of the three [together] would not be sufficient. For the body in motion from a single beginning point might terminate at two [different] ending points in two [different] time durations, and vice versa; that is, the body terminating at a single ending point might be in motion-change from two [different] beginning points in two [different] time durations.

Whether the cause of the motion-change is single or multiple has no consequence for the fact that the motion-change is a single individual factor. Indeed, if it should be assumed that a cause of motion-change would put a body into motion, and then, before the termination of its motion, if another cause of motion-change should [continue to] move it, then the motion-change [itself] would be [still] a single individual factor, although there would be a plural cause for the motion-change. The motion-change would be a single individual factor only because, even if the continuous motion-change has resulted from two [different] causes of motion-change, its identity as a continuity would remain, and so it would be a single individual factor.

c. [Gradual] motion-change varies in accordance with the variation in its beginning and ending points. Ascending, that is, motion-change from the center to the outer [celestial] circumference, is different from descending, that is, motion-change from the outer [celestial] circumference to the center,⁸⁷ in the kind it is. Likewise, motion-change varies in accordance with a variation in the environmental category in which the motion-change takes place, as when something white starts to become yellow, then red, then black, or the white becomes light pistachio green, then darker leaf green, then black.

⁸⁶ MS gl: *Le.*, the agent moving in the motion-change [*al-mutaharrik*].

⁸⁷ MS gl: *Le.*, the earth [as center of the universe of celestial spheres].

d. However, a variation [in the following items] would be of no consequence:

1. the cause of the motion-change, or
2. the subject-substrate [i.e., the body in motion], or
3. the time duration, if a variation in time duration may be theorized.

(1.) Regarding the cause of the motion-change, [this is true] because of the admissibility of differing factors having a commonality in a single effect. Indeed, each one of the different causes of motion-change⁸⁸ might cause a motion-change corresponding in kind to some other motion-change. [Baydawi] referred to this fact in his statement, "Since it is admissible that these different factors would have commonality in a [single] effect."

(2.) Regarding the subject-substrate [i.e., the body in motion, it is true] because of the admissibility that [several] substrates would share in a single accidental quality. The substrate would be the subject-substrate for the motion-change, and the motion-change would be its accidental quality. Thus, it is admissible that the subject-substrates should have differences in kind while at the same time there would be a oneness in kind of the motion-change. [Baydawi] referred to this fact L 230 in his statement, "... or accident." In other words, it is admissible that different substrates, that is, different subject-substrates, should have a commonality in a single accidental quality.⁸⁹

(3.) And regarding time duration, [this is true] because it is an accident of motion-change. And it is admissible that accidents of various kinds should have a commonality in a substrate of a single kind.

Variation in motion-change in a generic sense is with regard to MS 111b the environmental category in which the motion-change takes place, as 'transition', 'change', 'growth', and 'position'. For the fact is, since 'transition', namely, motion-change in the category of place-where, and 'change', namely, motion-change in the category of quality, and 'growth', namely, motion-change in the category of quantity, and motion-change in 'position', all take place within the categories of place-where, quality, quantity, and position, which are

⁸⁸ MS gl: As are the sun and fire, though they are different in kind the motion-change [they cause] is one in its kind, namely, the heat [being generated].

⁸⁹ MS gl: For the whiteness in cotton and the whiteness in snow are two different things in their subject-substrates, but they correspond to each other in reality.

all differing genera, the motion-changes mentioned have become different in genus. Thus, 'transition' would be a genus different from 'change'.

e. Opposition in motion-change is not due to the opposition⁹⁰ of the

1. cause of the motion-change, or of the

2. time duration, because of what has preceded

a) to the effect that it is admissible that motion-change that is a single individual factor should result from two different causes of motion-change, and

b) to the effect that there is no opposition in time duration, even though opposition may be supposed to exist in it, as time duration is an accident of motion-change, and the opposition of an accident does not require the opposition of its substrate. Nor [is opposition in motion-change] due to the opposition of

3. [the environmental category] in which the motion-change takes place. Indeed, T 106 'ascending' is the opposite of 'descending', yet they are both by a single pathway.⁹¹

Thus, the fact remains that the 'opposition in motion-change' is due to [the opposition between] that from which it proceeds and that to which it proceeds, that is, the beginning point and the ending point. The opposition between beginning and ending points is either

a) a matter of the essence, as is blackness and whiteness,—for between these two the opposition is a matter of the essence, so, the motion-change from blackness to whiteness would be the opposite of motion-change from whiteness to blackness,—[or], sometimes the opposition between beginning and ending points is

b) a matter of accidental quality, as is ascending [motion] and descending [motion]. Their beginning and their ending are two points that resemble each other, in that they are two points between which there is no opposition. But, 'opposition' has been made accidental to them both, in that one of the two points has become the beginning of the motion-change and the other has become the ending of the motion-change.

f. The division of motion-change is through the division of

⁹⁰ L, T, and MS Garrett 989Ha: [li-taḡād]; MS: [bi-taḡād].

⁹¹ MS gl: Namely, that in which [the motion-change] takes place.

1. the time duration, because the motion-change that takes place in half of the time duration would be half of the motion-change that takes place in all of it; and [the division is] through the division of

2. the distance,⁹² because the motion-change that takes place in half of the distance would be half of the motion-change that takes place in all of it; and [the division is] through the division of

3. the 'body in motion',⁹³ because the 'motion-change' would be inherent within the 'body in motion' because of [the motion-change's own] essence, and the division of a substrate necessitates the division of the factor inhering within it, if [that factor's] inherence is because of its own essence.

Baydawi said:

L 230, T 106

Types of force required to make gradual motion-change necessary

[Gradual motion-change] requires some force to be its necessary cause. If this force is caused by something external, the motion-change is called

a. 'compulsory' [motion-change]. If it should be otherwise, and if [the force] should have an [intellectual] awareness of the consequences [of its action], then it would be called

b. 'voluntary' [motion-change. And again] if it should be otherwise, then it would be called

c. 'natural' [motion-change].

Each one of these is either swift [motion-change] or slow, but the slowness is not on account of the dispersion [within it] of periods of rest.

If it should be otherwise, then the ratio of the periods of rest—dispersed among the motion-changes in the course of the Pegasus [constellation] in half a day—to its motion-changes, would be [equal to] the ratio of the excess of the motion-changes of the greatest celestial sphere over the motion-changes of [the Pegasus constellation].

⁹² MS gl: This division belongs specifically to motion-change in the category of place-where.

⁹³ MS gl: One should understand that this division would not be in the motion-change of the category of place-where, since if the moving body should not actually have any [separate] 'part', then the result would be obvious; but if it should have [such], then the motion-change would be made accidental to the whole body first, and then by it as intermediate to the [separate] parts. [From 'Ibri's commentary on Baydawi's *Tawail' al-Anwar*.]

Thus, the periods of rest of [the Pegasus constellation] would be more numerous than its periods of motion-change [by] a thousand thousand L 231 times,⁹⁴ so necessarily there would not be any sensate perception of its few periods of motion-change, overwhelmed as they would be by the periods of rest.

Moreover, if it should be admissible that the sun should increase in altitude [by just] a [single] degree,⁹⁵ while its shadow would be at rest, then it would be admissible to a second and third degree, until its altitude should be complete.

Rather, what makes [the slowness] necessary in 'natural' motion-change is the resistance of the [particular] environment traversed; in the [case of] 'compulsory' [motion-change] it is the resistance of the natural [environment], and in the [case of] 'voluntary' [motion-change] it is the resistance of both of these.

Isfahani says:

L 231, T 106, MS 113b

Types of force required to make gradual motion-change necessary

Gradual motion-change requires some force to make it necessary. [This is] because if the body in motion should move of itself,⁹⁶ then its resting would be impossible, because whatever is due to itself would continue because of the continuance of [its nature]. However, this conclusion is false, and the premise is likewise.

That force inevitably must be existent in the moving body. Thus, if that force MS 114a existent in the moving body should be caused by some external cause, without which the force would not exist, then the motion-change would be called

a. 'compulsory'. If it should be otherwise, that is, if that force should not be caused by some external cause, and if it should have an [intellectual] awareness of the consequences [of its action], then that motion-change would be called

b. 'voluntary'. [Again], if it should be otherwise, that is, if that force should not have an [intellectual] awareness of the consequences [of its action], then the motion-change would be called

c. 'natural'.

⁹⁴ Here at the page transition the scribe of L mistakenly added a 3rd 'thousand'. This is corrected in T, and it is not in the commentary text.

⁹⁵ degree [juz].

⁹⁶ MS gl: I.e., not from the force.

All of the three motion-changes, 'compulsory', 'voluntary', and 'natural' are [both] swift and slow. If a [given] accident of 'quality' should modify the motion-change and the motion-change should increase because of the accidental modification by that 'quality', then⁹⁷ this 'quality' would be called 'swiftness' as the motion-change is 'swift'. And if a given 'quality' should be an accidental modifier and the motion-change should decrease because of the accidental modification by that 'quality', then this 'quality' would be called⁹⁸ 'slowness', as the motion-change is 'slow'.

Swift motion-change will cover an equivalent distance in a shorter time duration, or a longer distance in an equivalent or less time duration. Slow motion-change is vice versa, that is, it covers an equivalent distance in a longer time duration, or a shorter distance in an equivalent or longer time duration.

There is no variation in the quiddity of motion-change that is due to the variation between swiftness and slowness. That is because swiftness and slowness are receptive both to increase and decrease, but not a one of the 'specific differences' is receptive to either of them, so nothing in swiftness or slowness constitutes a 'specific difference'. Therefore, as nothing in [either of] them constitutes a 'specific difference', the variation in motion-changes between swiftness and slowness would not necessitate any variation in the quiddity.

Slowness is not due to [an internal] dispersion of periods of rest, because if the slowness should be because of [an internal] dispersion of periods of rest, then the ratio of the periods of rest dispersed among the motion-changes during the course of the Pegasus constellation for half a day to the motion-changes occurring in it would be equal to the ratio of the excess of the motion-change of the greatest celestial sphere over the motion-change of the Pegasus constellation to the motion-change of [the Pegasus constellation]. But the greatest celestial sphere would have covered in that time [i.e., half a day] nearly a quarter of its measure,⁹⁹ and without doubt that would be greater than the distance which Pegasus covered in that time duration by a thousand thousand times. Thus, the periods of rest of the Pegasus constellation during that time MS 114b would

⁹⁷ L inserts 'and', only confusing the meaning.

⁹⁸ The scribe of L. omits the preceding clause in error.

⁹⁹ MS gl: i.e., a quarter of its cycle.

be greater than its motion-changes by a thousand thousand times, thus, one would not [be able] to have sensate perception of its motions, overwhelmed as they are by the periods of rest. L 232 But the actual fact is the contrary of that.¹⁰⁰

Furthermore,¹⁰¹ if we should fix a stick of wood in the ground, when the sun ascends from its eastern horizon there would occur on account of the stick a shadow on its western side. Then [the shadow] does not cease to decrease until the sun reaches its highest altitude. So then the case is that,

a. either the motion-change of the decreasing shadow would be equal in swiftness to the motion-change of the sun in rising, which is absurd, otherwise, the two motion-changes would be equal in range [which is false], or,

b. the motion-change of the sun would be devoid of periods of rest, while the motion of the shadow would be interspersed by periods of rest, which also is absurd. This is so, because if it should be admissible for the sun to increase in altitude [merely] a degree, and the shadow to be at rest and nothing diminish T 107 from it, then it would be admissible to a second and a third degree, until the sun should reach its highest altitude, and nothing of the shadow would decrease.¹⁰² Or,

c. the motion of the shadow would be slower than the motion of the sun, without there being any interspersal of periods of rest, this being the goal of the logic.

Rather, the factor making slowness necessary in 'natural motion-change' is the resistance of the environment traversed,¹⁰³ and in 'compulsory motion-change' it is natural resistance,¹⁰⁴ and in 'voluntary motion-change' it is the resistance of both the natural elements and of the environment traversed. Likewise, in 'compulsory [motion-change]' the resistance is from both of these [factors].

¹⁰⁰ MS gl: I.e., the periods of rest are not perceived sensately in [the half day], but its motion-changes are perceived.

¹⁰¹ MS gl: this is another proof that slowness is not on account of [an internal] dispersion of the periods of rest.

¹⁰² MS gl: This being false, by observation.

¹⁰³ MS gl: That is the external hindrance, as the air, for example.

¹⁰⁴ MS gl: I.e., internal resistance.

Baydawi said:

L 232, T 107

Whether quiescence occurs when straight-line motion changes direction

The doctrine commonly held is that a period of quiescence necessarily must intervene between every two straight-line movements. This is because the 'directional force'¹⁰⁵ moving the body necessarily must exist along with it until it reaches the assigned boundary point. That arrival would take place within a given moment; and necessarily the movement away from that boundary point would be by reason of another 'directional force' the occurrence of which would be within another moment. [This is necessary] because it is impossible to bring a directional force inclining toward a given point together with a directional force inclining away from it. Therefore, between the two [movements] there would be a time duration, otherwise, the [infinite] succession of [atomic] moments would be implicit; and so, the body during that time duration would be quiescent.

This argument has been refuted by ruling out [both] the impossibility of bringing together the two [differing directional force] inclinations, and the [infinite] succession of [atomic] moments.

Isfahani says:

L 232, T 107, MS 114b

Whether quiescence occurs when straight-line motion changes direction

The doctrine commonly held is that a time duration of quiescence necessarily must intervene between two different [consecutive] straight-line movements, as are [consecutive] ascending and descending movements. This is the doctrine of Aristotle,¹⁰⁶ while the doctrine of Plato¹⁰⁷ is that there would not be a time duration of quiescence between the two [movements].

¹⁰⁵ Directional force [may]. This does not mean a merely static 'inclination', but rather, an 'inclination because of a directional force upon it'.

¹⁰⁶ A concise statement of this was found in Aristotle's *Physics*, 5:4 (228b [1-5]).

¹⁰⁷ This seems to be implied in Plato's doctrine that all motion, whether that of random, straight line, and unjoined movements prompted by the irrational in souls, or that of continuous cyclical movement prompted by the rational in souls, is caused by the sometimes opposing forces in the World Soul. [Paraphrased from A.H. Armstrong: *An Introduction to Ancient Philosophy*, p. 50. [Totowa, N.J.: Rowman & Allenheld, repr. 1983. (A Helix Book)]

Observe the closely parallel explanation, also from classical philosophy, but supporting Ibn Sina's doctrine, in the following note.

Ibn Sina's Argument that Quiescence occurs when Straight-Line Motion changes direction

Shaykh Abu 'Ali [Ibn Sina] argued in support of the commonly held doctrine, [saying] that when a body—that is in motion toward one or another of the points along a [certain] distance—comes to that point the arrival is a matter of a [single] moment.¹⁰⁸

[This is true], since, if its arrival at that point should be within a time duration, the time duration being capable of division, then in a [given] portion of that time duration the case would inevitably be either

a. that the body would have arrived at that point, or

b. it would not have. If it should be the first alternative, then that portion [i.e., of the time] would be the time duration of the arrival, not the totality [of the time].¹⁰⁹ If it should be the second alternative, then the arrival would be in the remaining [other portion] of the time duration; thus, the time duration of the arrival would be the remainder, not the totality [of the time].

If the arrival should be in a moment, then necessarily the [directional force] that brings about the arrival to that point would be in the moment of the arrival, because the directional force MS 115a is the proximate cause for the moving body's arrival to that point, and the proximate cause necessarily would be a reality when the causal effect would be something real.

Then, if the moving body should move away from that limit point and should turn back from it after the fact of its arrival, then necessarily its leave from it would be by another directional force that would be the cause for its turning back from that point. That [other] directional force would be different from the first directional force L 233 because of the impossibility for a single directional force to be the proximate cause for [both] the arrival at a limit point and for the departure from [literally: 'nonarrival' at] it.

¹⁰⁸ MS gl: The arrival [wuṣūl] is [when there is a] coinciding [intibāq] of the termination [taraf] of the body in motion with the terminus [taraf] of the distance.

Majid Fakhry explains in his *A History of Islamic Philosophy*, p. 137, [2nd ed., New York: Columbia University Press, 1983; (Studies in Oriental Culture; no. 5)] that back of Ibn Sina's philosophy of motion is the classical view that motion is caused by soul; and beyond this "principle of all motion . . . is the single, eternal, and circular motion of the outermost heaven. Such a motion being undending, must be numerically one and circular, since it is impossible for rectilinear motion, whose nature is to turn back or to be succeeded by rest, to be endless."

¹⁰⁹ MS gl: Although the totality had been assumed.

Moreover, that other directional force would originate in the moment of the 'nonarrival',¹¹⁰ and [this] moment of the departure would be different from the moment of the arrival, because of the impossibility of two different directional forces joining together upon a single body in a single moment. If it should be otherwise, then the implication would be that the arrival and the departure had come together in one moment.¹¹¹ Then, the case inevitably would be either

- a. that there would be a time duration between the two moments, or
- b. that there would not. The second alternative is false; otherwise, there would be the implicit [unlimited] succession of [atomic] moments, which would imply the indivisible atom, and that is impossible.

So the first alternative is indicated. The moving body mentioned [as being] in that time duration would be quiescent, because it would be neither moving towards that point nor moving away from it. Thus, necessarily there would be a time duration of quiescence between the two motion-changes.

However, this [position] is refuted by denying that the meeting of the two directional forces would be impossible, and by denying that the unlimited succession of [atomic] moments would be an impossibility.¹¹²

Baydawi said:

L 233, T 107

3. *The case of the adjunctive relationship*

The phrase, 'what is adjoined', is freely applied to the 'adjunctive relationship', this being the real sense of an adjunct in relation, and to its subject-substrate, and to both of them together, this being the commonly held notion.

- a. One of the properties of 'adjunction' [that in it there is] a reciprocal equivalence as to the necessity of [each part of the relation's] existence;

¹¹⁰ MS gl: I.e., in the moment of departure.

¹¹¹ MS gl: I.e., assuming that the two [different] potential forces would be in two [different] moments.

¹¹² MS gl: Because a meeting of the two directional forces [al-maylayn] does not imply that there would be a meeting together of both the 'arrival' and the 'non-arrival' [i.e., the departure]. This is because it is admissible that an effect might not exist when the cause would exist, due to some factor preventing [the effect].

b. and [another property is] the obligation of the inversion [of each part of the relation],¹¹³ as when you say, "Father of the son" and "son of the father";

c. and [another property is] that if [the adjunction] should be absolute and present in one part [i.e., either 'father' or 'son'], then it would be so in the other part. However, if the subject-substrate of [only] one of the two should be present, then it would not imply that the subject-substrate of the other must be present.

d. Then, another of [adjunction's properties] is [that in it there is] whatever is mutually agreeable on both sides [of the relationship], as are 'mutual likeness' and 'equivalence'; or,

e. [another property is] where there would be some limited difference, as [one] being half or double [the other], or an unlimited [difference], as when one is more or less [than the other].

To characterize [the adjunction] as having 'equivalence' in it may require that there be a description [of something] real on both sides, as 'lover' and 'beloved', or on one of them, as the 'knower' and the 'object of knowledge'. But sometimes there is no [such] need, as [when something is on the] 'right' or 'left'.

[The adjunctive relation] may be a qualifier in the rest of the categories. In 'substance' it would be as 'father of', in 'quantity' as 'great [amount] of', in 'quality' as 'hottest of', in 'place-where' as 'highest of', in 'adjunction' as 'nearest of', in 'possession as habit' as 'the clothes of', in 'activity' as 'most convincing of', and in 'passivity' as 'most battered and ragged of'.

Adjunctions in their individuality, their species, their genus and their opposites are all subordinately consequent to their subject-substrates.

Isfahani says:

L 233, T 107, MS 115a

3. *The case of the adjunctive relationship*

The phrase, 'the adjoined' [i.e., the 'governing adjunct'] is freely applied as having a commonality among

a. 'the adjunctive relationship' itself, that is, the relational entity as accident that is the real 'adjunct', and

¹¹³ [al-takāfu' fi luzūm al-wujūd wa-wujūb al-in'ikās].

b. the 'substrate' of the adjunction alone [i.e., the 'delimiting adjunct'], but what we have in mind is not linked to it,¹¹⁴ and

c. upon the 'total combination' resulting from

1. the adjunction that is set up as an 'accident' [i.e., properly, the 'governing adjunct'], and

2. its subject-substrate, [i.e., properly, the 'delimiting adjunct'] to which the 'adjunction' is made accidental, this [total combination] being [referred to as] 'the adjoined', in the commonly held notion.¹¹⁵

An example of the first [i.e., "a") above] is fatherhood. And [an example] of the second [i.e., "b") above] is a essence [i.e., of some named person], of which fatherhood is made an accidental quality. And [an example] of the third [i.e., "c") above] is the father who is the 'essence' together with the attribute of fatherhood.

Therefore, a true adjunction¹¹⁶ is a frame of reference, whose quiddity is something intelligible, [and is] in a relationship with the understanding [that one might have] of another frame of reference, that [in turn] is also something intelligible, [and is] in a relationship with the understanding [held] of the first frame of reference, equally whether the two frames of reference should be different from one another, as fatherhood and sonship, or T 108 should be mutually in accord MS 115b as brotherhood on both sides [i.e., of the relationship]. L 234

¹¹⁴ MS gl: Rather, what we have in mind is linked to the adjunction itself.

¹¹⁵ Here Isfahani may confuse the reader [or, listener] as he tries to explain the adjunctive relationship by employing the terms and viewpoint of the '*popular notion*' about it, while hinting to the reader that proper technical terminology is different. It will be noted that the commentator continues to do this in many subsequent paragraphs.

A technical term explanatory summary is here set forth, using terms from various grammars, perhaps newly phrased here; this summary is shown in capital letters. Mention of the '*popular notion*' is in lower case.

THE TOTAL ADJUNCTIVE RELATION [AL-IDĀFAH]—(#1) CONSISTS OF TWO PARTS, GOVERNING ADJUNCT [AL-MUDĀF]—(#2), AND DELIMITING ADJUNCT [AL-MUDĀF İLAYHI]—(#3): IN FUNCTION, (#2) IS TREATED AS ACCIDENTAL TO (#3), WHILE (#3) IS TREATED AS THE SUBSTRATE OF (#2).

The '*popular notion*' treatment freely applies (#2) to any of these three factors as "having a commonality among" each of them, in that each of the three may be truly described as "the adjoined." That is, "the adjoined" = "the adjunction." Here, the '*popular notion*' is seen as not stopping to itemize and differentiate the names and functions of each factor.

¹¹⁶ MS gl: I.e., the adjunctive relationship [al-idāfah] itself.

Not every relationship is a relationship of adjunction. Indeed, even though the quiddity of the relationships that are not adjunctions¹¹⁷ should be something intelligible in a relationship with the understanding held of some other thing, nevertheless that other thing would not be something intelligible in a relationship with the understanding held of the relationship.

A relationship in which both sides do not exist,¹¹⁸ in view of its being a relationship, would not be an adjunction. But a relationship in which both the two parts do exist would be an adjunction.

a. One of the properties of adjunction is the [reciprocal] equivalence¹¹⁹ in the requirement that existence be [on both sides either] in actuality or in potentiality.¹²⁰ That is, if one of the two adjuncts should be existent in actuality, then necessarily the other would be existent in actuality; and if one of the two should be existent in potentiality, then necessarily the other would be existent in potentiality.

b. Another of the properties of adjunction is the [reciprocal] obligation of inversion,¹²¹ that is, the property requiring that each of the two parts [in turn] be made the 'governing adjunct' of the other, in that each one [in its turn] also would become the 'delimiting adjunct' of the other.¹²²

[It would be] as when you say, "The father is the father of the son, while the son is the son of the father; and the slave is the slave of the master, while the master is the master of the slave."

But if that should be not observed, that is, if one of the two should not be made the governing adjunct of its counterpart, in that [in turn] it would also become its delimiting adjunct, then the inversion would not be realized.

¹¹⁷ MS gl: Such as 'place-where' and 'position' and others of the seven that have been mentioned.

¹¹⁸ Reading with the MS, MS Garrett 989Ha, and MS Garrett-Yahuda 4486: [lā yūjad]; L. and T: [lā yu'khaḍh].

¹¹⁹ MS glosses: 1. I.e., equality [tasāwa']; 2. I.e., conformance [tawāfuq].

¹²⁰ MS gl: [Both] externally and in the mind, that is, each of the two is concomitant to the other in existence; if one of the two should become nonexistent, then the other would become nonexistent, as in [the case of] fatherhood and sonship. [From 'Ibri's commentary on Baydawi's *Tawālīf*.]

¹²¹ L 234 gl: This is when a grammatical inversion [al-in'ikās al-ḥamlī] makes the predicate [al-mahmūl] to be the subject [al-mawḍū'] and the subject the predicate . . . [From the *Hashiyat Tajrid*.]

¹²² [al-ḥukm bi-idāfat kull wāḥid minhumā ila' al-ākhar min ḥayth kān muḍāfan ilayh].

[It would be] as when the father would be made 'governing adjunct' of the son, [but merely] from the standpoint of his being a person, so that one would say, "The father is the father of the person"; but no inverted statement would be implicit, for no one says, "The person is the person of the father."

This inversion¹²³ is something other than the inversion¹²⁴ set forth in the science of logic.

c. Another of the properties of 'adjunction' is that if [the adjunction] should be [real and] absolute¹²⁵ or hypothetically posited¹²⁶ on one side, then it would be [so] on the other side, likewise. For example, a [real and] absolute 'fatherhood' [might be] opposite to a [real and] absolute 'sonship'. And if a [real and] absolute 'fatherhood' should be hypothetically posited in an essence [i.e., of some person] [on one side], then [an equivalent] 'sonship' would be hypothetically posited [likewise] on the other [side].¹²⁷

However, regarding a case, where if the subject-substrate of one of the two adjuncts should have been hypothetically posited,¹²⁸ then there would be no implication that the subject-substrate of the other would be hypothetically posited. An example would be that the subject-substrate of the 'fatherhood' would be hypothetically posited, but there would be no hypothetical positing for the subject-substrate of the 'sonship'.¹²⁹

d. Then, another [of the properties] of adjunction would be whatever would mutually correspond on the two sides, in that each of

¹²³ MS gl: Being [only] a verbal inversion [in'ikās lughawf].

¹²⁴ The scribe of L has omitted the preceding clause.

¹²⁵ MS gl: I.e., unrestricted.

¹²⁶ MS gl: I.e., specified [mutakhaṣṣah] or designated [muta'ayyanah].

The phrase, 'hypothetically posited', is chosen [and perhaps here coined] to show that Isfahani is making a contrast with 'absolute' [muṭlaq]. That is, something is real and 'absolutely' unrestricted by any mental limitation put on it; and, in contrast there is something theorized, and hypothetically assumed or posited.

¹²⁷ MS gl: That would be in [the case of] the two adjuncts [al-idāfatayn] themselves. But if the subject-substrate of one of the two adjuncts should be hypothetically posited, that would not imply that the subject-substrate of the other adjunct would be hypothetically posited. Indeed, 'being a head' [for example] would be an adjunct made the accidental quality of a certain body member, in relation to the 'possessor of the head'. But 'knowledge' of 'that member' would not imply a 'knowledge' of 'the particular individual' whose head it is, [merely] because of the reciprocal equivalence of the two adjuncts in mental existence, as you have learned. [From 'Ibri's commentary on Baydawi's *Tawālīf*.]

¹²⁸ MS gl: As the fatherhood of Zayd.

¹²⁹ MS gl: As in the case of Jesus ['Isa'], peace be upon him.

the two adjoined parts would have a characteristic corresponding to a characteristic of the other, as a 'mutual likeness', or an 'equivalence', or 'brotherhood'.

e. Another property of adjunction would be whatever would mutually differ on the two sides, in that each of the two would have a characteristic differing in a certain limited way¹³⁰ from the characteristic of the other, as one [side] being half¹³¹ or double [the other]. Or, MS 116a [it would be differing] in an unlimited way, as one [side] being 'more' or 'less' [than the other].

Sometimes if an adjunctive relationship is made to characterize a subject-substrate, then that will necessitate a genuine attribute on both sides, as 'lover' and 'beloved'.¹³² In [the case of] the lover it would be the perceiving frame of reference,¹³³ and in the case of the beloved it would be the frame of reference¹³⁴ to which perception is linked.

Sometimes [such a case] will necessitate a real attribute on one of the two sides but not on the other, as with the 'knower' and the 'known', for the knower is adjunct to the 'known', since [the knower] is described with the attribute of knowledge, but without the 'known' being described by any further attribute.

Sometimes [in such a case] there is no necessity for a real attribute on either side at all, as with [the terms], 'right' and 'left', for they are [already] adjoined, L 235 without consideration of any further description on [either side].

Adjunction may be accidental to all existent beings. In regard to the Necessary Existent, the Most High, it is as 'The First of'. In regard to substance it is as 'father of'. In regard to quantity,¹³⁵ it is as 'a great amount of', or 'a large amount of', or 'a small amount of'. In regard to quality, it is as 'the hottest of' or 'the coldest of'. In regard to place-where, it is as 'the highest of' or 'the lowest of'. In regard to time, it is as 'the most ancient of' or 'the most recent of'. In regard to the adjunct, it is as 'the nearest of' or 'the farthest of'. In regard to position [here in the sense of 'posture'], it is as

¹³⁰ MS gl: I.e., determined [mu'ayyan].

¹³¹ MS gl: Of the other.

¹³² MS gl: [Or], as desiring [al-'āshiqīyah], that is, perceiving [al-idrāk], and desirableness [al-ma'shūqīyah], that is, attractiveness.

¹³³ MS gl: Because of which the lover desired the beloved.

¹³⁴ MS gl: Because of which the beloved became so to the lover.

¹³⁵ MS gl: I.e., continuous.

‘the most erect of’ or ‘the most crooked of’. In regard to possession as habit, it is as ‘the best clothed of’.¹³⁶ In regard to activity, it is as ‘the most convincing of’ or ‘the sharpest of’. In regard to passivity, it is as ‘the most ragged of’ or ‘the most broken of’.

Adjuncts in their individual natures, in their species, in their genera, and in their opposites are [all] subordinately consequent to their substrates. Thus, if the substrates should be individuals, or species, or genera, or opposites, then the adjuncts, being [their] accidents, would be the same.

Baydawi said:

L 235, T 108

On priority in the adjunctive relationship

A corollary [to our discussion] is that [in the adjunctive relation] priority over something may be

- a. within time duration, as the father being prior to his son,
- b. in any particular case and in the generality of nature, as the part is prior to the whole,
- c. in causality, as the sun [itself] is prior to its own outshining light,
- d. in a location, as the prayer rite leader stands ahead of the person [or, group] being led in worship, and
- e. in honor, as a scholar has priority over an ignorant fool.

There being nothing more to investigate in any of the categories of relationship, let us conclude our discussion of ‘accidental qualities’ [Book 1, Section 2].

Isfahani says:

L 235, T 108, MS 116a

On priority in the adjunctive relationship

Because ‘priority’ is one of the species in the category of the adjunctive relationship, [Baydawi] made it a corollary to [his discourse on] ‘adjunction’, and pointed out its divisions, which are five in number.

- a. The priority of one thing over another in time duration consists in the antecedent coming before the subsequent in a priority in

¹³⁶ The MS adds: “or, ‘the most stripped bare of.’” Other sources used omit this.

which the preceding factor is not materially joined to the succeeding factor, as a father being prior to his son.

b. Priority in any particular case consists in one thing having need of another, but not being an effective cause over it, as the part is prior to the whole, and as 'one' precedes 'two'.

c. Priority in causality consists in the effective necessary cause having precedence over its resulting effect, as the sun [itself] is prior to its own outshining light.

d. MS 116b Priority in 'rank' consists in the fact that an orderly arrangement is given due regard in it, and our author [Baydawī] calls it priority in 'location'. The rank may be

1. sense perceptible, as when the prayer rite leader stands in front of the person [or, group] being led in worship,¹³⁷ or [it may be]

2. rational, as the genus being prior to the species, starting from the highest order, or vice versa starting from the other [lowest] limit.

e. Priority in honor, as a scholar having priority over an ignorant fool.

Now, to narrow down [each classification] would be a matter for [a case by case] inductive examination. Some eminent scholars have set up another class, in which certain moments of T 109 time duration would precede certain others. They asserted that [this class] would not belong to any of the five classes mentioned, because

(a.) [this class] would not be a matter of time duration, since it is impossible for a time duration to govern another time duration;

(b.) nor would it be a matter of some particular case or of the generality of nature,¹³⁸ since none of the moments of a time duration stand in need of the others;

(c.) nor would it be a matter of causality, [the case being like the preceding one];

(d.) nor would it be a matter of rank, because [then] it would be either a matter of position, but time duration has no 'position', or it would be a matter of the intellect, but it is not in the nature of the moments of a time duration for some of them to have priority over the others;

(e.) nor would it be a matter of honor, and that is obvious.

¹³⁷ MS gl: [i.e.], starting from the mihrab.

¹³⁸ A matter of some particular case or of the generality of nature [bi-al-dhāt wa-al-ṭabʿ].

This was the doctrine [Baydawi] set forth.

The truth is that [the hypothetical extra class] L 236 belongs within the time duration priority [i.e., class (a.) above], because priority within time duration does not require that each antecedent and subsequent must be in a different time duration than their own, but rather, priority within time duration requires that the antecedent must precede the subsequent in an antecedence wherein the preceding element is not joined to the succeeding element. The moments of time duration are like that in their relationship to each other. Thus, the antecedence of some of them over others is within a time duration, but not in some time duration additional to the one preceding, rather, within a time duration that is the very same one that precedes.

Moreover, it is admissible that some moments of time duration take precedence over other moments in rank. For 'yesterday' precedes 'today' in rank, since it began on the side of the past; and vice versa, since ['today'] began on the side of the [oncoming] future.

There being nothing more to investigate among the remaining categories, [Baydawi], therefore, contented himself with the chapters he had presented, and concluded his discussion of 'Accidents' [i.e., Book 1, Section 2].¹³⁹

¹³⁹ One owner of the MS mistook Isfahani's reference to the conclusion of 'Accidents' [Bk. 1, Sect. 2], and added in the margin: "That is, The 'Accidents of Relation'" [Ch. 4].

SECTION 3: SUBSTANCES

- a. The philosophers said that a substance would be either
 1. a substrate, namely, primal matter, or,
 2. an inherent [in a substrate], namely, a form,¹ or,
 3. a composite of the preceding two, namely, a body; or
- b. none [of the foregoing] would be the case, and then [substance] would be an incorporeal entity.²
 1. If [this incorporeal entity] should be so linked with a body as to have a governing function [over it], then [the incorporeal entity] would be a soul.
 2. But, if it should be otherwise, [i.e., not so linked with a body as to have a governing function], then [the incorporeal entity] would be an intellect.³
- c. The Mutakallimun held that every substance is
 1. a space-occupying entity, and every space-occupying entity is
 - a) [either] receptive to division, this being a body,
 - b) or [not receptive to division], this being an atom [i.e., a single unit of substance].⁴

The topics of this Section 3 are comprised within two chapters.

SECTION 3: SUBSTANCES

When [Baydawi] finished [Book 1], Section 2 on accidents, he began on Section 3 on substances, and you have learned the meaning of substance in [Book 1], Section 1, Chapter 1 [on the universals].

¹ Substrate [maḥallan], namely, primal matter [al-hayūla'], or, an inherent [ḥāllan] [in a substrate], namely, a form [al-ṣūrah].

² In his *Ta'rifat*, Jurjani defines [al-mufāriqāt] as, "substances, abstracted from matter, that are self-subsistent."

³ Soul [al-naḥs], intellect [al-'aql]. See the important explanation given in the glosses on Isfahani's commentary at this point, below.

⁴ Atom [al-jawhar al-fard].

a. The philosophers hold that substances consist of five [kinds]: primal matter; form; MS 117a body; soul; and intellect. That is so because substance is either

1. the substrate of another substance, namely, primal matter; or,
2. an inherent in another substance, namely, a form; or,
3. a composite of the [preceding] two, namely, a body,

or, [a substance] would be none [of the foregoing], that is, it would be neither a substrate, nor an inherent form, nor a composite of those two, so then [substance] would be an incorporeal entity.

4. And if this incorporeal entity should be so linked with a body⁵ as to have a governing function [over it], then it would be a soul;

5. but if it should not be so linked with a body as to have a governing function [over it], then it would be an intellect.

b. The Mutakallimun hold⁶ that every substance is a space-occupying entity, and every space-occupying entity is either

1. receptive to division, which would be a body, or
2. it would not be receptive to division, which would be an atom.

This [statement: c-1-2] is the doctrine of the Asha'irah.

c. The Mu'tazilah hold that if the substance should be receptive to division

1. in one dimension only, then it is a line; and
2. if it should be receptive to division in two dimensions, then it is a [two-dimensional] surface; and
3. if it should not be [either of these] then it is a [three-dimensional] body.

There is no disagreement between the [foregoing two parties]⁷ as to meaning, but rather, as to the terms of designation.

⁵ L. 236 [and MS] gl: [Baydawi] used the [general term] body [al-jism], and not the human body [al-badan], which is the common term, only so that the heavenly [presumably celestial] souls [al-nufûs al-samāwīyah] might enter it [i.e., the body], since [the term] human body [al-badan] would not be applied to a body in the heavens [al-jism al-samāwī], technically speaking. [Attributed to 'Ibri's commentary on Baydawi.]

This note emphasizes the fact that Baydawi's reference is a general one to all bodies [celestial and terrestrial], not a particular one to the human soul only.

⁶ MS gl: Regarding the classification of a body [al-jism], meaning a substance [al-jawhar], that it is limited to two classes.

⁷ MS gl: I.e., between the Mutakallimun and the Mu'tazilah.

The topics of [Book 1], Section 3 consist of two chapters, Chapter 1 being on topics about bodies, Chapter 2 on [topics about] incorporeal entities.

Baydawi said:

L 236, T 109

CHAPTER 1: BODIES

1. *Definition of a body*

The delimiting definition that is satisfactory to all modern [scholars] is that [a body] is a substance that accepts [all] three dimensions intersecting at right angles. L 237 An objection has been raised against [this definition]⁸

a. on the ground that [the nature of] substance has not been established as a genus. Moreover,

b. if the factor of the receptivity [of substance to dimensions] should be an accidental quality, then [the factor] would not be part of substance. But

c. if [this dimension reception factor] should be the substance [itself], then the genus would be included within it, so then some other specific difference would be called for, and [the argument] would become an infinite series. By this [reasoning] it has been understood that substance is not a genus.

The Mu'tazilah hold that [a body] is anything with length, width, [and] depth, while some of our own [Asha'irah] colleagues [of the Mutakallimun] hold that [a body] is anything composed of two or more parts. But there is no doubt that the real nature of a body is something more apparent than these [definitions].

⁸ Isfahani identifies Ibn Sina as the objector, and discusses the objection at length.

Isfahani says:

L 237, T 109, MS 117a

CHAPTER 1: BODIES

The topics about bodies are five in number:

1. the definition of a body, 2. the parts [composing a body], 3. the classes [of bodies], 4. bodies as temporal phenomena, 5. bodies as limited entities.

1. *The definition of a body*

One should understand that judgmental assent to the existence of the body has no need for logical reasoning. This is not because the body is in itself sensately perceived, but rather, because by sensate perception the rational soul perceives some of [the body's] accidental qualities, as its surface, from the category of quantity, and its color, from the category of quality. So then after sense perception has transmitted that [information] to the intellect, the intellect makes the inherently necessary judgment that the body exists, that is, its judgment has no need to reason logically or to construct a syllogism.

Thus, the body is [both] a perception of the senses, from the aspect of its accidental qualities mentioned here, and it is an intelligible, from the aspect of its essence. The body is not merely a perception of the senses, but rather, sense perception aids⁹ the intellect in making its inherently necessary judgment of the body's existence.

Not every judgment the intellect makes is one of inherent necessity that is conditional upon the fact of its being derived from sense perception in every regard.¹⁰ But rather, some [such judgments] are derived in that way, [i.e., from sense perception in every regard], others are not at all derived from sense perception,¹¹ and others are derived from sense perception in some certain aspects.¹² MS 117b

⁹ Texts read, [mu'āwin]; T has variant reading, a close associate [muqārin] to the intellect.

¹⁰ MS gl: As is the judgment that fire is hot, for judgment about this is derived from sense perception in every regard.

¹¹ MS glosses: 1. As our statement that the Necessary Existent is One; 2. As the judgment that the soul exists, etc.

¹² MS gl: As is a body, for example.

Judgmental assent to the existence of a body is of the third kind; indeed, sense perception transmits to the intellect the conception of [the body's] surfaces and their states.¹³ Thus, in view of the fact that that [conception] has been transmitted to [the intellect], following that [transmittal] the intellect makes the inherently necessary judgment that the body exists, even though the judgment of the intellect regarding [the body] is dependent upon sense perception. T 110

Now, as to defining [a body], the definition of a body that satisfies the majority of contemporary scholars¹⁴ is that a body is a substance that is receptive to the three dimensions, namely, length, width and depth, that intersect at right angles.¹⁵ This is a descriptive definition of a body, not an essential definition, equally whether we say that substance would be a genus for the [individual] substances, or that it would be concomitant to them. This is because receptivity to the three dimensions that intersect at right angles belongs among the concomitants specific to [bodies],¹⁶ not among their essential qualities.

A right angle is one of two that are equal and that occur when one straight line is erected upon another straight line so as to be perpendicular to it, that is, not inclining to either side, thus:

right angle  right angle.

If the erect line should incline to one side, then the angle on the side to which it inclines would be an acute [angle], while that on the side [away] from which it inclines would be an obtuse [angle], thus:

obtuse angle  acute angle.

What is meant by [the body's] receptivity is that it is possible to posit the three dimensions as accidents in it, L 238 not that¹⁷ the

¹³ MS gl: As colors.

¹⁴ MS gl: Among the philosophers.

¹⁵ MS gl: This definition is valid only among the philosophers, not the Mutakallimun and the Mu'tazilah.

¹⁶ Reading with the MS, MS Garrett 989Ha, and MS Garrett-Yahuda 4486: [al-lawāzim al-khāṣṣah]. The editors of L, with those of T following, chose the reading: external concomitants [al-lawāzim al-khārijīyah].

¹⁷ Here the scribe of L failed to write the second separate [ʿalif] (with its support), so that [lā anna] appears to be merely [lā na].

three dimensions actually would be occurring in it. That is, it is possible to posit in it [one] dimension [accidental to it], then to posit another dimension [accidental to it] intersecting the first at a right angle, then to posit in it a third dimension [accidental to it] intersecting the two of them at a right angle also.

[The author] stipulated the three dimensions to intersect at right angles only because a multiplicity of dimensions might intersect a surface, but not at right angles. If he had not stipulated the three dimensions to be intersecting at right angles, then the receptivity to them would not be the [specific] property of a body, since a surface would have commonality with a body in this [generalized receptivity]. Indeed, many dimensions might intersect in a surface, but they would not intersect at right angles; rather, three or more dimensions would intersect in it at angles that are not right angles, in this form:

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But at right angles, only two dimensions would intersect in it, thus:

---|---. Therefore, an intersection of three dimensions at right

angles is the [specific] property of a body.

The stipulation mentioned, that is, the intersection MS 118a at right angles, is not intended as an exclusion of the surface, for the surface, being an accidental quality, is excluded from the definition of substance that was mentioned, without requiring any other stipulation to exclude it. Rather, the stipulation mentioned is intended only so that the receptivity to the three dimensions would be the [specific] property of a body, because without this stipulation, the receptivity would not be the [specific] property of [a body].

An objection might be raised that this definition belongs to a natural [three-dimensional] body, but the stipulation mentioned would not apply specifically [and exclusively] to it, because a geometrical teaching body would have commonality with [the natural body] in [this stipulation].

The reply [to this objection] is that the specific [and exclusive] factor is [the author's] statement, "[A body is a substance that has] receptivity to the three dimensions intersecting at right angles." The geometrical teaching body does not have any commonality with [the natural body] in [this statement]. For that [substance having] a receptivity to the three dimensions would be something to which the three dimensions would be external, but the geometrical teaching body would not be something to which the three dimensions would be

external, for the three dimensions would be its [internal] constituent factors.¹⁸

We have mentioned that having receptivity to the three dimensions means [a body] in which it is possible to posit three dimensions. This possibility has been interpreted as a general¹⁹ possibility, so that under it may be subsumed that in which [all] three dimensions actually occur,²⁰ and that in which [all] three dimensions do not actually [occur], as [for example], the celestial spheres,²¹ and that in which not one of [the three dimensions] actually occurs, as [for example,] a solid sphere.²²

You should know that the eminent [philosopher, Aristotle] made this [explanatory] definition [given by Baydawi and expounded here] to be an essential and complete definition²³ of a body.²⁴ But he was opposed by [Ibn Sina with]

¹⁸ That is, a geometrical teaching body might be a paper or wood construction, based on a plan of its intrinsic form demonstrating the three dimensions intersecting at corners in three right angles. The three dimensions each may be planned and demonstrated as straight lines or flat surfaces. In nature, however, the three dimensions of a large irregularly shaped stone,—or of an animal's body, or of a tree trunk—would be taken by measurements of its exterior, as the dimensions normally do not occur as straight lines or flat surfaces. Compare this with the discussion in Book 1, Section 2, Chapter 2, Topics 2–3.

¹⁹ MS gl: I.e., inclusive [shāmil].

²⁰ MS gl: As a cube.

²¹ MS glosses: 1. For they have only depth; 2. For no [dimension in a straight] line exists in them in actuality.

²² MS gl: I.e., its interior is full. That it has no length and width is obvious. It does not have depth because [only] one spherical surface surrounds it, and depth exists only between two [different] surfaces, as in all other bodies sensately perceived.

²³ Reading with L, T, and MS Garrett 989Ha: [ḥaddan tāmmān dhātūyan]. The phrase, "and complete", is not in the MS and MS Garrett-Yahuda 4486.

²⁴ Aristotle's definition of body is given by Tj. de Boer in the article "Djism" in *En-I-2*: "A body is that which has three dimensions and is a continuous, therefore always divisible, quantity."

In Ibn Sina's *Isharat*, [v. 2, at p. 2,] Nasir al-Din Tusi, the commentator on this work, writes that Ibn Sina, in his role as a Commentator upon Aristotle, who was known as the "First Teacher", intends to verify (in this volume) the truth as to whether substance is a composite of atoms, or is a composite of matter and form.

[p. 3] This question involves partly natural science and partly philosophy, because Aristotle began his teaching with the natural sciences . . . and ended with philosophical questions . . . since the topic of the natural body composed of matter and form . . . led to other topics . . . as rejection of atomism and the finitude of the dimensions,

[p. 4] Ibn Sina wanted to start with natural science also, but on condition that [Aristotle's habit of] moving back and forth between sciences would be removed, as it mystified students. So, matter and form came first, he rejected atomism, so this led to other topics. The term body is applied commonly to (a.) a naturally existing object by necessity, as it is a substance that can have posited in it the three

a. the argument that no genus was established for substance, but rather, the fact that it lacked a genus was established, for a reason we shall explain;²⁵ although [substance] was [mistakenly] settled as the location of the genus.²⁶ So, this [explanatory] definition would not be a delimiting definition of a body.

b. Furthermore, [there is an objection against this definition to the effect that] if that which has receptivity to the three dimensions should be

1. an accident, then it would not be a [constituent] part of substance,²⁷ because any constituent part of substance would be substance. And if it should not be a constituent part of substance, then it would not be a specific difference, although it was set up as the location of the specific difference.²⁸ So, this [explanatory] definition would not be a delimiting definition [of a body]. And if the factor having the receptivity should be

2. substance, with the stipulation being that substance is the genus for the [individual] substances, then the implication would be that the genus was included within [this factor having the receptivity], and then there would be a demand for another specific difference, L 239 and then the argument implicitly would be an infinite series. But this would be impossible, because the infinite series would consist of existent factors set up in an order [going on] without end.

The author [Baydawi] said that by this [reasoning] it is understood that it is not admissible for substance to be the genus for the substances.²⁹ This is because, if substance should be a genus for the substances,³⁰ then the specific difference, that produces MS 118b

dimensions, and to (b.) the geometrical teaching body, a continuous quantity having the three dimensions.

[p. 6] The worthy Commentator [Ibn Sina] criticized this delimiting definition from two aspects: (1.) substance is not a genus ("the argument for which is in his other books"); (2.) receptivity to the dimensions is not a formal difference; because, if it were existential it would be an accident as it is a relationship of some sort, and as an accident its locus substrate would need another receptivity, and so, the body would subsist in an accident.

²⁵ L and T add: "if God Most High wills." I.e., Isfahani hopes to explain. See the material following.

²⁶ MS gl: On this assumption [i.e., that substance lacked a genus].

²⁷ MS gl: Because it is impossible for substance to subsist in an accident.

²⁸ MS gl: On this assumption [namely, (?) that what had receptivity to the dimensions was a constituent part of substance].

²⁹ Isfahani paraphrases Baydawi's wording, "... that substance is not a genus."

³⁰ The scribe of L has inadvertently omitted the preceding clause.

its species would be substance, from the inherent necessity of the fact that a constituent part of substance is substance. Thus, the genus would be included within the nature of the specific difference, and [then] the [first] specific difference would have need for another³¹ specific difference that would be substance [also], and the argument implicitly then would be an infinite series.

This requires consideration, for the factor having the receptivity [to the three dimensions],—and this [receptivity] constitutes the specific difference,—would be substance, in the sense that substance would be validly predicated of [the specific difference]. But there is no implication that substance would be the genus of [the specific difference], because of the admissibility that substance could be a general accidental quality of [the specific difference]. The genus of the species would be validly predicated of the specific difference of the species, just as a general accidental quality would be validly predicated of it, but not as the genus would be predicated of it, so an argument in an infinite series would not then be implied.

By this [reasoning] is known the reply to the proof that was mentioned,—to the effect that it is not admissible for substance to be the genus for the substances T 111 of the individual species,—for those who say that substance is the genus for the substances . . . , mean [to say] that substance is the genus for the substances of the individual species, not for [the substances by themselves], and for their specific differences [i.e., considered apart from their species]. [The situation is the same] as the state of every genus in relation to its species, namely, as genus for the species, and as a general accidental quality for its specific difference.

Ibn Sina's objection to this definition of a body

The Imam [Ibn Sina] said that there are three doubtful aspects regarding this definition.³²

a. [The first doubtful aspect about this definition is that] it defines an entity by something more obscure than it is. Every thinking person

³¹ The MS inadvertently omits "another."

³² Namely, that a body is a substance receptive to the three spatial dimensions—length, width and depth—intersecting at right angles. Ibn Sina's three objections here to the definition of a body were not located in his *Isharat*. They are different from the two that Nasir al-Din Tusi did quote from Ibn Sina, which we have just given in a preceding note, namely, a) substance is not a genus, and b) receptivity to the dimensions is not a formal difference.

knows that every observable body possesses size, occupies space, and so on among other factors. And if [its having] an angle should not occur to [such a person's] mind, to say nothing of right angles in the way [modern scholars] mention them, then it would be an obscure concept indeed, that occurs only to a few individuals.

b. [The second doubtful aspect about this definition is that] when we say that a body is anything of that sort, and

1. if the intended meaning should be that the word "body" should have a certain sense, then it would not be known from [the sentence] whether [or not] it would be an observable body that would be such, and in the end [the question] would go back to the interpretation of the word [body]. And

2. if the intended meaning should be that the reality referred to by [the word] observable is to be described by this quality, then that would be a thesis³³ that must be established either by something inherently necessary or by logical reasoning.

Furthermore, since a thesis cannot be framed³⁴ until a conception has been formed of its subject, then our statement that a body would be anything in which it is possible to posit the three dimensions would depend upon forming a conception of a body. For if we should derive the conception of a body from [our statement], then the argument implicitly would be circular.

It cannot be held that a body is something conceivable³⁵ in itself a priori,³⁶ nor that this definition serves to complete the conception. Our position is that this [explanatory] definition MS 119a is a descriptive definition, and it would not serve to complete the conception.

c. [The third doubtful aspect about this definition is that] a body to you [other philosophers] would be a composite of primal matter and form. Now, it is not admissible for a form to enter into [the body's function of] receptivity to the [three] dimensions, since form is the [constituent] factor by which a body has being in actuality. And so, if [the form], together with [its function as constituent of the body's actual being], should have a function [also] in the [body's] receptivity [to the three dimensions], then [the case would be one of] a single factor being the source of [both the body's] receptivity

³³ MS gl: *Le.*, a judgmental assent.

³⁴ L and T: [*lā tumakkan*]; MS: [*lā yumkin*].

³⁵ MS gl: *Le.*, conceivable in some aspect or other.

³⁶ MS gl: Before an explanatory definition.

and its actuality in being, which would be impossible. But, if the form should not be a constituent factor in the [body's] receptivity to the [three] dimensions, L 240 in view of [its] being recipient [of the form], then the only entity that would be receptive to the [three] dimensions would be the primal matter. Then, however, the descriptive definition that you have set forth would not be dealing with the body at all, but rather, with the primal matter only; although the purpose of what is in this section [of Book 1] is to present the doctrine that primal matter would not be receptive to the [three] dimensions until after [its] first having received the form.

But [Ibn Sina]³⁷ made a distinction between (a.) primal matter conditioned by [the form of] corporeality, and (b.) a joining together of primal matter and [the form of] corporeality. Thus, [he said] the [body] receptive [to the three dimensions] would be primal matter conditioned by the occurrence of [the form of] corporeality in it, not a joining together of primal matter and the form [i.e., of corporeality].³⁸ But then, primal matter conditioned by the occurrence of [the form of] corporeality in it would be nothing but primal matter. So it has become plain that the [explanatory] definition that you³⁹ have set forth does not correspond with their doctrine⁴⁰ except with [regard to] primal matter.

Then Imam [Ibn Sina] said: Sometimes great pains are taken to answer these doubtful aspects. However, it would be preferable to hold that the quiddity of body is conceived as a fundamental conception. This is because by inherent necessity everyone learns from [any] dense and observable body⁴¹ that it occupies space as a body, and [everyone] distinguishes between that and what is not such. And you already know that anything like that does not warrant [our] being preoccupied with its definition.

a.-a. Reply [to Imam Ibn Sina] has been made regarding the first [doubtful aspect,] that it would be only a definition by something more obscure than itself if conceiving the [entire] body should come

³⁷ The first portion of vol. 2 of Ibn Sina's *al-Isharat wa-al-Tanbihat* is devoted to the relationship of substance with body.

³⁸ MS gl: Because the condition for an entity would not be a constituent part of it.

³⁹ I.e., Isfahani's party, as if being addressed by Ibn Sina.

⁴⁰ MS gl: I.e., the doctrine of the philosophers.

⁴¹ MS gl: Because something not dense is not observable.

before conceiving this specific property [of it].⁴² But that [doubtful aspect truly] would not be the case, for sometimes a person who is unable to express what it is and explain it will indeed form a conception of this specific property.

b.-a. [Reply has been made also] regarding the second [doubtful aspect], in that what is meant is that the real nature of a body would be such, although what is said in definition does clearly define the body. We do not grant that [the definition] would be a [mere] claim. Indeed, naming the object of definition when a definition is made is in order that the mind may move from [the definition] to the object defined, not in order to give information by way of [the definition] about the object being defined in order to serve as a claim.⁴³

c.-a. [And reply to Ibn Sina has been made] regarding the third [doubtful aspect], in that we do not grant that it would not be admissible for the form to be [integrally] within [the body's] receptivity to the [three] dimensions.

[Baydawi] states that since form is that constituent factor by which a body has being in actuality, then if [the form], along with that [latter function], should be [also] a constituent factor MS 119b in the [body's] receptivity, then it would be a case of a single factor being the source for [both the body's] receptivity and [its] actuality in being.

Our [Isfahani's] position is that its being a constituent part of the [body's] receptivity does not imply that a single factor would be the source of [both] the receptivity and the actuality in being. But rather, the source of the [body's] receptivity would be the sum of the form and the primal matter, while the source of the [body's] actuality in being would be the form alone, and so there would be no difficulty in it.

But even if it should be granted that [the argument] did imply that a single factor would be the source of both the [body's] receptivity and its actuality in being, nevertheless we do not grant that such a case would be impossible. [The impossibility] would be implied only if there should be no plurality in [such a case]; that would be impossible.

⁴² MS gl: That is, that a body is receptive to the three dimensions.

⁴³ MS gl: [I.e.], as far as [the claim] would need a conception of the subject.

Indeed, the form has both existence and quiddity. And its quiddity has constituent factors that are inherently necessary due to its being a composition of the genus and the specific difference, [and] the assumption being that substance is the genus for the species subsumed under it.

However, if it should be granted that substance would not be the genus for [the species subsumed under it], then [the form's] quiddity would have no constituent factors, but it would have the possibility of existence and the necessity of existence.

Furthermore, it would be admissible for a single factor to be the source of both [a body's] receptivity and of its actuality in being, in view of what L 241 plurality there might be in [that factor].

Now, the Mu'tazilah hold that a body would be anything long, wide, and deep; that is, a body is anything in which it is easy to posit length, width, and depth.

And some of our [Asha'irah] associates who affirm that a body is a composite of atoms hold that a body is a composite of two or more substances.

Our author [Baydawi] has said that there is no doubt that the real nature of a body is more apparent than what has been set forth in these definitions. T 112 Indeed, every thinking person knows that every observable body has bulk and occupies space. [This is well known], even if the angle should not come to mind, to say nothing of the concept of right angles from the aspect mentioned,⁴⁴ or of length, width, depth, or the indivisible atom. Indeed, that [last factor] is a very obscure concept and [comprehension of it] comes to only [a few] individuals.⁴⁵

Baydawi said:

L 241, T 112

2. *Leading doctrinal theories on the parts of a body*

Most of the Mutakallimun have taken the position that bodies that are simple in nature are composed of minute atomic parts that are basically indivisible. Some few hold that [the parts are indivisible]

⁴⁴ MS gl: I.e., intersecting.

⁴⁵ MS glosses: 1. I.e., intelligent [individuals];

2. Thus, it is a definition by way of something more obscure, which is invalid.

actually,⁴⁶ and a few others hold [that such a body is made] of parts beyond numbering.

The philosophers hold [that bodies] are continuous in themselves [actually], as they are to sensate perception, [and they are] receptive to divisions without limit.

The Mutakallimun argument that a body is a composite of indivisible atoms

a. The argument of the Mutakallimun is that a body is receptive to division, and nothing receptive to division is a single unit; otherwise, its unity would be subsisting within it, and would be divided by its division. Moreover, the portions of every divisible entity's parts are distinguished by [the entity's] various properties, so that in actuality [the divisible entity] is divided and is multiplied in accordance with the number of those properties that are accidental to [its parts]. Furthermore, if the identity of [any] two parts, that would exist separately after being divided, should have been in existence before being divided, then that would be the desired conclusion.

If it should be otherwise, then the division would be a destruction of the first body and an origination of the two [separated] portions; so, on the basis [of this reasoning], if a gnat should pierce the surface of the ocean with the point of its needle, then it would destroy the first ocean and bring another ocean into existence. But the corruption of this [reasoning] cannot be hidden.

So, it is established that no body is a single unit in itself, but rather, it is a composite of [its] parts.

b. Further, these parts [of the body] are not divisible. If it should be otherwise [i.e., if these parts should be divisible], then these would have other parts, and thus a body would be composed of parts without limit. But this would be impossible, because an [indivisible] one would exist within every [aggregate] number, whether limited or not.

If we should take eight parts, distributed so that there would be some bulk in every region, there would result a [kind of artificial] body that would be finite in its parts. And then its relationship⁴⁷ to all the other bodies would be a relationship of something limited in

⁴⁶ Minute indivisible atoms [ajzā' ṣughār lā tanqasim]; basically [aşlan]; actually [fi'lan].

⁴⁷ T adds: . . . of its size to the size.

[bulk] measure to something limited in [bulk] measure; but any increase in [its] bulk would be due [merely] to an increase in [its] composition and arrangement. Therefore, if a body limited in its [bulk] measure should consist of [internal] parts without limit [in number], then the relationship of the [bodies having] limited [internal] units to the [bodies having] unlimited [internal] units would be [still] the relationship of a limited entity to a limited entity. But this would be contrary [to actual fact].

Also, if a body should be composed of internal parts without limit, then it would be impossible to traverse the distance [i.e., from one boundary within it to an opposite boundary], because that would depend upon traversing⁴⁶ [all] the individual parts of the distance. And the traversing of every part would be preceded by the traversing of the one before it, so, traversing [the whole body] would [continue on] within an unending time duration.

Also, L 242 a point [in time or space] is an existent entity by agreement, but it does not accept division. Then, if [the point] should be a substance, as we hold, then the desired conclusion would result. If [the point] should be an accident, then its substrate would be indivisible; otherwise, [the point] would be divisible also along with the division of its substrate.

Moreover, the gradual motion-change of the present [universe, taken as an entity] is indivisible; otherwise, all [the universe as a whole] would not be present. Therefore, whatever is within [the universe] cannot be divided.

Thus, it is established that in bodies there is a factor that does not accept division.

No one can hold that the gradual motion-change [of the universe] would be nothing more than the past and the future, because that [case] would necessarily cause the gradual motion-change [of the universe] not to exist at all.

⁴⁶ The scribe of L has omitted the preceding word, 'traversing'.

Isfahani says:

L 242, T 112, MS 119b

2. *Leading doctrinal theories on the parts of a body*

Our [Isfahani and Baydawi] position is that every body⁴⁹ either is

a. a composition of parts⁵⁰ that are

1. different in nature, as in a living being, or [parts] that are
2. not different [in nature], as in a bed, for example; or it is

b. an individual unit.⁵¹ And there is no doubt at all that an individual body, that is, a body that is simple of nature, that is, in which there is no composition [of] powers and natures, as [for example] in water,⁵² would be receptive to division. So, the case must be either

1. that possible divisions do actually occur in a body, or

2. that they do not; and on the basis of each of these assumptions, the divisions [in the body] are either limited, or unlimited [in number]. MS 120a Thus, there are four alternative possibilities [i.e., in forming a concept of a body]:⁵³

a. The first [possibility] would be that an individual body would be composed of actual atomic parts limited [in number], that are minute and not at all divisible, that is, not by breaking⁵⁴ or by cutting,⁵⁵ and not by estimation⁵⁶ or [even] by assuming [their divisibility].⁵⁷ This is the doctrine of most of the Mutakallimun.

There was another theory in which a body would be indivisible actually, but was divisible [in theory] by estimation and [by] assum-

⁴⁹ From this point to the end of the four alternative possibilities in the concept of a body, Isfahani uses Ibn Sina's text in the *Isharat*, (v. 2, pp. 7–9) nearly verbatim to state his position.

⁵⁰ Reading with the majority of source texts. L alone reads, bodies; in this it follows the presumptive scribal error in Ibn Sina's *Isharat* text, p. 7.

⁵¹ MS gl: I.e., a single body, like the celestial spheres and the elements.

⁵² MS gl: Its original parts are existent in actuality and are not different in nature; but the parts of parts are different in nature, being elements, and in this respect [they] approach the single [body], because the part of a part is a part.

⁵³ Alnoor Dhanani [*The Physical Theory of Kalam*, p. 152, n. 34] identifies this list as that found in Fakhr al-Din Razi's *Muhassal*, pp. 115–116. Razi's list, however, is an abridgment of what Ibn Sina wrote in his *Isharat*, v. 2, pp. 8–9. Isfahani uses Ibn Sina's fuller version.

⁵⁴ MS gl: On account of their smallness.

⁵⁵ MS gl: On account of their hardness.

⁵⁶ MS gl: Because the power of estimation would be unable to distinguish one of its extremities from the other.

⁵⁷ MS gl: Because of [an assumption's implied] acceptance of the divisibility of what at the same time is indivisible in itself.

ing [the divisibility], this being the doctrine of a party of the early scholars.⁵⁸

b. The second [possibility] would be that a body would be composed of actual atomic parts⁵⁹ [but] not limited [in number], minute and not at all divisible. This is the doctrine to which some [of our] early scholars adhered, as well as al-Nazzam, of the Mu'tazilah Mutakallimun.⁶⁰

c. The third [possibility] is that [a body] would not be composed of parts, but rather, it is continuous in itself, as it is to sense perception, but receptive to division on a limited basis. Muhammad al-Shahrastani⁶¹ preferred this theory.

d. The fourth [possibility] is that [a body] would not be a composition of parts, but rather, it would be a continuous contiguity,⁶² as it is to sense perception, and receptive to division without limit.⁶³ This [last statement] is the doctrine held by [most of] the philosophers.

The Mutakallimun argument that a body is a composite of indivisible atoms

a. The Mutakallimun argued regarding the first part of their doctrine,—namely, that a body, while it is simple [and unitary] of nature,

⁵⁸ MS gl: Of the Mutakallimun. F.D. Razi's brief list does not include this theory.

Tj. de Boer's article "Djism" in En-I-2 mentions a "theological atomism" that was one of the theories of body. De Boer cites the review of Muslim atomist theories [compiled by Ibn Maymun (Maimonides) writing in Spain at the end of the 1100's A.D.] as translated by D.B. Macdonald [in "Continuous re-creation and atomic time in Muslim scholastic theology", *Isis* 9 (1927) 326-344]. Here a theoretic principle is stated: "Whatever is imaginable is also rationally possible, with the exception, naturally, of logical contradictions." [p. 334] That is, God's will is free to vary in acts of creation, so the theorists formed another theoretic principle: "the assertion of [unlimited] possibility." [p. 335]

⁵⁹ The MS alone adds: . . . actual parts.

⁶⁰ Both Isfahani and F.D. Razi have repeated this mistaken information under item 2. But "Ibrahim ibn Sayyar al-Nazzam (d. ca. 835-845) was one of the most virulent Kalam opponents of the adoption of atomism. His objections and arguments against atomism continued to engage the mind of atomists of later generations . . ." [Dhanani, op. cit., p. 9, etc.] However, certain medieval writers still included his name among the atomists. Modern academic research in original Arabic sources is gradually discovering more of al-Nazzam's true position.

⁶¹ MS gl: One of the later philosophers. Nasir al-Din Tusi related Shahrastani to this item, but said that it was a 'rejected theory' [qawl mardūd]. [See Tusi's *Talkhis al-Muhassal*, p. 116, n. 1, as printed on the lower portion of pages of F.D. Razi's compendium.]

⁶² Or, continuous in itself [muttaṣil fī nafsīhi], with a gloss in the MS: One.

⁶³ MS gl: Meaning that its being divisible would not end at some limit after which it would not be receptive to division.

is in actuality a composition of parts,—on the basis of a number of supporting reasons.⁶⁴

1. A body is receptive to division; and nothing that is receptive to division would be a single unit. This is because if it should be a single unit, then its unity would subsist in it, and [this] unity would be divided when the body would be divided, because the division of a substrate would require the division of the inherent.⁶⁵

An objection might be raised that unity is a mental consideration, not [something] existent among the individual quiddities whereby a division of the body would imply that the unity subsisting within it also would be divided. There actually would be no division in the body as long as unity subsisted within it, T 113 inasmuch as it would be a continuity L 243 with no division present in it. If an actual division should be made in it, then the unity would be removed; that is, [the unity] would be voided and not divided.

2. The cut portions of any [body] receptive to division are differentiated by [the body's] various properties.⁶⁶ Thus, the cut of every portion can be assumed to be in the body, and thus it would be characterized by a property that would not occur in another part. The cut of a half would be characterized as a half, and none but it would be characterized as a half, and likewise with the cut of a third and a quarter.

Thus, if each of the possible cuts should have an actual property because those cuts were actually existent in [the body], then, since it would be impossible for a nonexistent entity to be characterized by properties, and since among the philosophers [for a single body] to have the various properties necessarily would cause [in it] the occurrence of actual divisions, then the implication would be that the body would be divisible MS 120b in actuality into as many divisions as there would be properties.

An objection might be raised that when a division is assumed in an entity receptive to division, then this would entail assumed properties [as well], but the variance of the concomitant properties from

⁶⁴ Ibn Sina's first two possible concepts of body [*Isharat* 2:9–10] fit the first statement [i.e., first half of it] of the *Mutakallimun*. Then Isfahani takes up some of the implications.

⁶⁵ T adds: Thus, the unity would not be a unity, but this is contrary to fact.

⁶⁶ MS gl: Namely, a half, a quarter, a third, and so on.

those assumed would not require any division actually to exist if an assumption should be lacking.⁶⁷

3. If a body should be divided so that it would become two bodies, and if the identity of the two portions separated from each other by the act of division should have been present before the act of division, then the two portions would have existed before the act of division, and the implication would be that the body was actually a composite of its parts, which would be the desired conclusion.

[Baydawi's] statement is "If it should be otherwise",—that is, if the identity of the two portions separated by the act of division should not have been in existence before the act of division, then by the act of division that single body would be destroyed and these two [other] identities would be originated,—“then the act of division would be a destruction of the first body and an origination of the two other bodies.”⁶⁸

So, by this [reasoning] if a flying gnat should alight upon the encircling ocean and pierce with the point of its needle a part of the surface of the water of the encircling ocean, then it would destroy that first ocean, and bring another ocean [or, two other oceans]⁶⁹ into existence. This is because when the [oceanic body's] continuity at the place where the needle pierced was split apart, then that [undivided] extent⁷⁰ would vanish, and when that [undivided] extent vanished, then what had been continuous by its means would have vanished, and so on [through the argument] to the other ocean. The corruption of this [reasoning] cannot be hidden from anyone.

An objection might be raised that there would be no impossibility in removing continuity and originating a separation by division, but rather, [the case is that] the removal of continuity and the origination of separation by division would be a matter of sense perception.

[Baydawi's] statement is, “So, it is established⁷¹ that no body would

⁶⁷ MS gl: But it would require the assumed division.

⁶⁸ MS gl: Which would be absurd.

⁶⁹ L, T, and MS Garrett 989Ha: [awjadat baḥran]; the MS and MS Garrett-Yahuda 4486: [awjadat baḥrayn].

The former ms tradition limits to one the ocean brought into existence by the gnat. The other ms tradition carries out the argument's pattern to its absurd conclusion, namely, two oceans, the absurdity being essential to the presentation.

⁷⁰ MS gl: Of continuity.

⁷¹ MS gl: By the three reasons [given].

be an individual unit in itself,⁷² but rather, it is a composite of [actually existing] parts.”

An objection might be raised that if the reasons given should be [found] spurious, then it would not be established that no body would be an individual unit in itself, nor that it would be a composite of parts that exist L 244 in actuality.

b. The second part of the doctrine of the Mutakallimun [on the body], namely, that the parts from which the body is composed are not divisible, [Baydawi] wished to establish by his [second] statement, “And these parts are not divisible.” A clear explanation of this is provided from a number of aspects.

1. The first [main] reason the [body] parts would not be divisible is because if they should have been divisible, then they [in turn] would have had⁷³ other actual parts for reasons already given, and thus, a body would be composed of actual parts without end, which is the doctrine of al-Nazzam.⁷⁴ But for the body to be compounded of actual parts without end would be impossible, for two reasons.⁷⁵

a) The first [subordinate point (under the first main reason) that it would be impossible for a body to be composed of parts without end] is that every number, whether finite or otherwise, has an [indivisible] one existent MS 121a within it.⁷⁶ Thus, even if a

⁷² MS gl: And continuity, as with the Physician-Philosopher [Ibn Sina] and al-Shahrastani. In his *Muhassal*, p. 118, F.D. Razi reports that Ibn Sina held that the occupation of space [being an inherent factor] was form and its substrate was primal matter. “He argued, assuming the rejection of the theory of atoms, that a body in itself is an individual unit [i.e., continuous and undivided], but it is capable of being separated into parts. This receptivity [to separation] is present together with primal matter, but continuity cannot remain together with discontinuity; thus, receptivity to separation is quite different from continuity.”

In Ibn Sina’s list of four alternative possibilities in forming a concept of a body, both item 3 and item 4 include the description of a body as being continuous. Shahrastani prefers item 3, and Ibn Sina without doubt is one who prefers item 4.

⁷³ MS and MS Garrett 989Ha: [dhât]; L & T: [dhawât].

⁷⁴ “Muslim authorities report that this atomistic metaphysics was accepted by all Muslims with the exception of al-Nazzam, who seems to have adhered to the Aristotelian thesis of the divisibility of substance ad infinitum. Although al-Nazzam should be regarded as the major dissident of atomistic metaphysics, he was by no means alone.” [from Majid Fakhry, *A History of Islamic Philosophy*, 2nd ed., p. 53.]

⁷⁵ The argument then turns on whether the [body] parts would be limited in number or not [*Isharat* 2:19].

⁷⁶ Isfahani’s first subordinate point (under the first main reason) appears to grow out of Ibn Sina’s discussion [*Isharat* 2:19–32]. Terms and statements are much alike between the two writers, and the arguments are hazy and obscure in both. The

body should be composed of parts without end, it would be possible for us to take a finite number of ones from among those parts.

Then let us take eight parts from among the endless number of parts, and [let us] add them one to another. Then it would be inevitable either that the bulk [of the total] would increase with the increase in the compounding and the arrangement, or it would not. The second alternative [here] would necessarily require an interpenetrability of parts, which would be impossible,⁷⁷ so the first alternative is indicated.

Then in that case, it would be possible to join the eight parts to one another in such a way that a [certain] bulk amount would be in every region, and thus, a body limited in its parts would occur, for there would be only eight of them.

Then the ratio of the bulk of the body composed of eight parts to the bulk of the rest of the bodies—that are limited in number but composed of parts without limit—would be as the ratio of something limited in extent to something limited in extent;⁷⁸ but the ratio of the bulk of the [first] composite to the bulk of the [other] composite would be like the ratio of the units to the units,⁷⁹ because the increase of the bulk would be in accordance with the increase in the composition and the arrangement.

Otherwise, the composition would not increase the extent. For, if a body limited in extent should be composed of parts that are not limited [in number], then the ratio of the units that are limited, that is, the units of the body composed of limited units, to the units that are not limited [in number], that is, the units of the body whose units are without limit, would be like the ratio of the limited to the limited, because the ratio of the units to the units would be like the ratio of the bulk to the bulk.⁸⁰

b) The second [subordinate point (under the first main reason)] that it would be impossible for a body to be composed of parts

subject matter abets this problem, but one is reminded that both authors were writing in Arabic, the lingua franca of their day, not in their native language, Farsi.

⁷⁷ L gl: Because if the increase of the arrangement and the compounding of the parts should not increase the total bulk, then inevitably the case would be that those parts would be interpenetrable, all of one part corresponding to another part.

⁷⁸ MS gl: Because both of them would be finite.

⁷⁹ MS gl: Of the parts to the parts.

⁸⁰ MS gl: I.e., the ratio of the finite to the unlimited would be like the ratio of the finite to the finite. But this is contrary to fact.

without end] is that if a body should be composed of parts that are actually indivisible [and] unlimited [in number], then it would be impossible to traverse the limited distance [i.e., across the body] by gradual motion-change. The conclusion is obviously false⁸¹ and the premise is likewise false.⁸²

An explanation of the inherent logical necessity here is that if the body should be a composite of parts that are actually unlimited, then the traversing of the limited distance [across the limited body] would depend upon traversing every [single] part of it [that is unlimited], and traversing every [single] part of it would be preceded by a traversing of what would be before it. T 114 And thus, traversing all the parts of the distance, which is limited, would be in a time duration without any limit. Thus, necessarily that distance would not be traversed at all.

2. The second [main reason that a body's parts are not divisible] is that

a) a point [i.e., in time or space] would be an existent entity, by [scholarly] agreement:

1) regarding the Mutakallimun,⁸³ [they agree] because the point would be an atom of substance and this would be an existent entity; but

2) regarding the Physician-Philosopher [Ibn Sina], [his agreement is] because [a point] would be the extreme end of an existent line, and the extreme end of an existent entity would be an existent entity. Furthermore,

b) a point is not receptive to division. L 245 Thus,

1) if it should be an atom of substance, as is the doctrine of the Mutakallimun, then that would be the desired conclusion, because it would exist [as a] substance having a position that would not be receptive to division. And

2) if a point should be an accident, as is the doctrine of the Physician-Philosopher [Ibn Sina], then its substrate would not be divisible, MS 121b because, if that [substrate] should be divisible, then [the point itself] would be divisible also through the divisibility

⁸¹ MS gl: By sense perception.

⁸² Isfahani's second subordinate point (under the first main reason) that it would be impossible for the body to be composed of unlimited parts, is based on Ibn Sina's argument [*Isharat* 2:33–35].

⁸³ L and T make this noun plural, in both instances; while the MS, MS Garrett 989Ha, and MS Garrett-Yahuda 4486 have it in the singular in both places.

of its substrate, since an inherent in what is divisible must be divisible; and, if the substrate of the point should not be divisible, then the desired conclusion would be implied, because the substrate of the point would have a position that is not divisible. So, if [the point] should be a substance, then this would imply the existence of an indivisible substance having a position, namely, the desired conclusion.

An objection might be raised to the effect that a 'point' would be an accident and its substrate a divisible line. The division of its substrate would not logically require the division of [the point]. This is because the division of the inherent in a divisible entity would be necessary only if its inherence in the substrate should be because [the inherent itself] was a divisible entity. But if its inherence in the substrate should not be because it was a divisible entity, then the division of the substrate would not imply that [the inherent] would be divisible.

However, a point would be inherent in a line because [the line] would not be divisible. Indeed, a point would be inherent in a line only because [the line] would be limited and separable [into sections]. But the line, [merely] because of being limited and separable [into sections], would not [thereby] be [something] divisible [i.e., into natural divisions]. Thus, the division of the line [i.e., its separability into natural divisions] would not imply the division of the point.

3. The third [main reason that a body's parts are not divisible] is that gradual motion-change in the present is an existent thing, that is, gradual motion-change has existence in the present situation. And that⁸⁴ is because gradual motion-change is an existent but not stationary entity.⁸⁵

Thus, if [gradual motion-change] should not be existent in the present situation, then it would not have existence at all. This would be because the past and the future are nonexistent entities [now], and the gradual motion-change that is present and existent is indivisible. And this is because, if it should be divisible, then one of its two portions would precede the other portion within existence, and the whole present [universe] would not be present.⁸⁶ But this is contrary to fact.

⁸⁴ MS gl: I.e., the fact that gradual motion-change is existent in the present situation.

⁸⁵ Isfahani's third main reason here appears to be based on the same passage that his second subordinate point (under the first main reason) was based on, namely, *Isharat* 2:33-35].

⁸⁶ MS gl: Which was the hypothesis.

Now, if the present gradual motion-change should not be divisible, then that section of the total [theoretical] distance in which the present gradual motion-change is taking place would not be divisible.

However, if it should be otherwise,⁸⁷ then the division of that section [of theoretical distance] in which the present gradual motion-change is taking place would imply a division of the present gradual motion-change [itself], because gradual motion-change in [only] one of the two parts⁸⁸ would be [only a] portion of the gradual motion-change over both parts [of the theoretical distance together].

But, if the [theoretical] distance in which the present gradual motion-change is taking place should not be divisible, then [its identity with] the indivisible atom would be implicit, and this would be the desired conclusion.

An objection might be raised to the effect that gradual motion-change would not have existence in the present situation, but the absence of gradual motion-change in the present situation would not imply its nonexistence in an absolute sense.

[Baydawi's] statement is to the effect that the past and the future are [presently] nonexistent entities.⁸⁹

Our position [Isfahani] is that we do not grant that the past and the future would be [presently] nonexistent entities in an absolute sense, but rather, they are nonexistent entities in the present situation, and nonexistence in an absolute sense is not implied by nonexistence in the present situation.

[Baydawi's] statement is, "Thus, it is established that in bodies there is a factor that is not receptive to division." But someone might object, "When it was established that there was a weakness in the reasons indicating there is a factor in bodies that is not receptive to MS 122a division, [the identity of that factor] was not established."⁹⁰

Let no one say, "The present gradual motion-change is not an existent entity, because gradual motion-change would be only [in] the past L 246 and future; the present situation is the extreme

⁸⁷ MS gl: I.e., if the theoretical distance in which the present gradual motion-change exists should be divisible.

⁸⁸ MS gl: Of the distance.

⁸⁹ It is not a direct quote, but rather, Isfahani has logically derived this position from Baydawi's ambiguous statement in the last paragraph of his presentation on this topic, preceding Isfahani's discussion.

⁹⁰ MS gl: There was no establishment of [the identity of] the part not receptive to division.

end of the past and the beginning of the future, and it is not [within] a time duration, and what is not within a time duration would have no gradual motion-change taking place in it, because every gradual motion-change would be within a time duration."

Our position is that if the present gradual motion-change should not be an existent entity, then it would imply that gradual motion-change would not have any existence at all. This is because the past is an entity that was [formerly] existent within a present time duration, while the future is an entity that is anticipating its act of coming to be the present [time duration]. Any [time duration] whose present existence would be prevented would not [be able] to become either a past or a future [time duration], because, if it should not have existence in the present situation, then its existence would be prevented in an absolute sense.

An objection might be raised to the effect that the present situation would constitute a boundary shared by both the past and the future, being the end of the past and the beginning of the future, and it would not be a time duration. In the same way the rest of the boundaries that are shared by the other quantities would not have constituent parts, since, if the boundaries in common should be parts of the quantities whose boundaries they are, then dividing into two divisions [actually] would be dividing into three divisions, while dividing into three divisions [actually] would be dividing into five divisions.⁹¹ [But, all] this is contrary to fact.

So then, the present [universe] would not be [in] gradual motion-change, although it had been assumed that it was [in] gradual motion-change, and the demonstration argument⁹² was based upon it.⁹³

⁹¹ MS gl: I say in explanation of this that, if the boundary that is common to past and future, namely, the present situation, should be a part of time duration, then dividing [it] into two divisions would be as when the dividing of time duration into past and future [actually is] a dividing into three divisions, as it would be a division of a time duration into past, present situation, and future. Likewise, dividing [it] into three divisions [actually] would be a dividing into five parts, as it would be a division of a time duration into 1) the past, 2) the present situation, 3) the future, 4) the boundary common to both past and present situation, called ending past/beginning present situation, and 5) the boundary common to both present situation and future, called ending present situation/beginning future. [Gloss ends with, "By the writer of it" [Li-kātibihī], presumably meaning, "By the copyist of the MS", 'Alī ibn 'Abdī.]

⁹² L & T: [dalīl]; the MS: [bayānuhu].

⁹³ MS gl: I.e., the proof of the indivisible atom.

We do not grant that the past is an entity that had been existent in a [formerly] present moment. But rather, the past is an entity, part of which, with reference to a moment before the present situation, was future, while another part of it was past, and within the present situation all of it became past; and it is likewise with the future.⁹⁴

Furthermore, in the moment that separates between⁹⁵ the past and the future it would not be possible for a body to be in gradual motion-change, for gradual motion-change takes place only in a time duration, and there is not a bit of time duration in the present [moment], because [time duration] is not stationary in its essence.

Baydawi said:

L 246, T 114

The philosophers' arguments against the composition of bodies from atoms

The philosophers argued in rejection of the atom [from their theory of the composition of bodies] for a number of reasons.

a. With every space-occupying entity its right side would be something other than its left side. And its brighter side would be something other than its darker side, but no one [then] would say that that is because there was a [real] difference between its two sides. This is because

1. if [the two sides] should be two [different] substances, then the thesis [of the philosophers denying the atomic composition of the body] would be established; otherwise

2. [i.e., if the difference between the two sides should not be in their substances], then it would imply that the difference was between their two substrates.

b. If we should posit a line of atoms⁹⁶ even in number, T 115 with [one other] atom above one of [the line's] two extremities and another atom beneath the other [extremity], and if both [of these outer atoms] should move [inwards] equally and steadily, then most certainly there would be a junction of the two [outer] atoms, so a division [there] would be implicit [i.e., as a possibility].

⁹⁴ MS gl: I.e., the future is an entity, a part of which, with reference to a moment after the present situation, is future, while part of it is past, and within the present situation all of it is future.

⁹⁵ MS gl: This being the present.

⁹⁶ Baydawi and Isfahani in this section, in referring to 'the atom', use the term [juz'—ajzā'] meaning part [i.e.], an atomic part which does not and cannot break into smaller parts. We translate this term as 'atom'.

c. [In the example preceding], whenever the one quicker [i.e., assuming a difference in rate between the two moving outer atoms] in its motion should traverse [the distance of] one atom, then the slower one would traverse less than [the other did]. If it were otherwise, [the slower one] implicitly would be equivalent to [the quicker one] [in moving] across a single atom, and it would stop at the end, but the invalidity of such [reasoning] is evident.

d. If a body should have an odd number of atoms, and if its shadow's image should be twice [the body's length], then the shadow's image [equal to the body's length] would be [only] the shadow of half [the body]. Thus, [the body] would have [only] a half [shadow], and [by this half shadow] the middle atom [of the body] would be divided in half. Now, Euclid has demonstrated that every line validly may be bisected, and this [fact] requires [the division of the middle atom].

e. If a line should be assumed to be composed of three atoms, and over one of its two extremities there should be another atom, and if the line should move to the right while the [upper] atom [should move] to the left, and if [at the same time the upper atom] should [attempt to] move to a point above the second atom, L 247 then it would be impossible, since the second atom [simultaneously] would be moving to the space of the first atom [on the right]. And, if [the upper atom] should have moved to a point above the third atom [from the right], then it would have traversed two atoms [of distance] while the one below it [at the right end] had traversed [only] one atom [of distance]. Thus, the time duration, and the motion-change, and the distance would be divided.

f. An atom has a shape. Thus, if it should be a sphere [and] should be joined to other atoms, then there would be gaps between every pair but not large enough [gaps] to accommodate other atoms like them, so [the necessity of] a division would be implicit. But if [the atom] should be something other [than a sphere]⁹⁷ then it would have angles, so [necessarily] it would be divided.

⁹⁷ In his book, *The Physical Theory of Kalam* [at p. 95], Alnoor Dhanani is describing how the early Mu'tazilah of Basrah had framed their theory of the atomic composition of bodies. He says that according to Ibn Mattawayh they believed the individual atoms occupied space and were invisibly small cubes in shape, and from these other entities were constructed. Two atoms placed together in a row constituted a 'line' and as a beginning it could be extended. Four atoms placed together in a square constituted a 'surface', and it could be extended. And eight atoms

g. If a hand mill turns and the large ring traverses [a distance the width of] an atom, then the small [ring] either would traverse [a distance of]

1. less than an atom, and so the atom would be divisible, or
2. a complete atom, and so the [mill's] small⁹⁸ and large [rings] would be equal, or

3. an atom at one time, and at another time [the mill] would be at rest, so [clearly] the parts of the mill would be coming loose.

[Another example] similar to that one would be [with] the three-pronged compass dividers.

Isfahani says:

L 247, T 115, MS 122a

The philosophers' arguments against the composition of bodies from atoms

The philosophers argued in rejection of the atom [from their theory of the composition of bodies for the following] seven reasons.⁹⁹

- a. With every space-occupying entity that can be postulated, its right side is something other than its left side; that is, the side that meets what is on its right is something other than that which meets what is on its left. And if we should arrange a [flat] surface of atoms and set one side of it facing the sun, then it would be bright, but the other side would not be bright; thus, its bright side would be something other than the dark side. So, implicitly there would be a division [of some kind in these two examples]. MS 122b

placed together in a cubic block constituted a 'body', which could be extended. This type of construction seems not to leave any open spaces, but seems to be divisible in theory.

⁹⁸ L: [ṣughra?]; T: [ṣaghīr].

⁹⁹ Presumably these are philosophers in general from the past. Ibn Sina's criticisms were mentioned along with the theory of the Mutakallimun in the previous topic. Here some of Isfahani's "seven" examples are subdivided. Baydawi had said the number was indefinite, but he had given the same seven with some being subdivided.

ʿAdud al-Din Ijī was a slightly younger contemporary of Isfahani, and like him a student of (or with) a student of Baydawi [See Baydawi's biographical note on this significant practice of a student in attendance along with a student of a master]. In his own summary of natural and dogmatic theology—*al-Mawṣūf fī ʿilm al-kalam* [Cairo: Makt. al-Mutanabbi, 1983], pp. 189–193, which mirrors the organization of Baydawi's theological work here, Ijī lists the reasons used by the philosophers in rejection of the theory of the atomic composition of bodies and arranges these reasons in four types, namely, those based on mutual opposites, mutually contacting factors, contrasting speed and/or slowness, and geometrical figures; these types of reasons together with subdivisions include some 20 different possible examples.

But no one says that the difference [noted] would be because there was a real difference between the two sides of [the entity in question], [i.e., the difference noted was] not because of a difference in the essence of the atom, so the division of the atom in itself would not be implied.

This is because—and it is our position that—if the two sides [of the entity] should be

1. two [different] substances, then the thesis [of the philosophers denying that bodies are composed of atoms] would be established, since the implication would be then that the atom had been divided into two substances; but if [the two sides] should be

2. two [different] accidents, then the implication would be that there was a difference between the two substrates. If the case should be otherwise [than these two alternatives], then the implication would be that two opposites were subsisting in one substrate, on one side, and in one time duration, which would be an impossibility.

b. If we should posit a line composed of an even number of atoms, four, for instance, and if we should place [another] atom above one of the line's] two extremities and [another] atom beneath the other extremity, and if those two atoms should move [inwards along the line] so as to exchange their [places] at an equal rate from the beginning of the line until each of them should reach the end of the line, then inevitably each of the two would have to pass the other. But that would not be possible until after the two would have come opposite each other, and the position where they would be opposite each other inevitably would be at the junction between the second and third [atoms in the line]. If it should be otherwise, then the two would not be equal in motion. In the example described the implication is that the two [in motion] would be divided [at their point of meeting], and also there would be a division [between] the second and third [atoms in the line].¹⁰⁰

¹⁰⁰ The Epicurean philosophers of Greece had argued about the divisibility of the atom, and similar arguments developed among the early Muslim thinkers. From his anti-atomistic position al-Nazzam challenged the Mutakallimun, "Is it possible to place an atom on the boundary between two atoms? If this is possible, he argued, then the atom has been conceptually divided . . ." (Dhanani, *op. cit.*, p. 124)

The MS (f. 122b) and MS Garrett-Yahuda 4486 provide an illustration in the margin:

. atom above one end of the line
 four atoms in a row
 . atom below other end of the line

c. [With reference to the preceding example, and assuming that the two outside atoms do not move at the same speed], whenever the quick body in its motion should traverse an atom, then the slow body in its motion would traverse less than [the other in distance].

If it should be otherwise, that is, if the slow one in its motion should not have traversed less than an atom, then the implication is that the slow one was equal to the fast one [in traversing a single] atom and in stopping at the next atom, since the implication would be that the slowness was because [areas of] quiescence had interpenetrated [among the atoms]; but the corruption of [such reasoning] is evident.

d. If a body should have an odd number of atoms, and if its shadow's image sometimes should be twice [the body's length], then the shadow's image [equal to the body's length] would be [only] the shadow of half [the body]. Thus, the [body's] atoms, which are odd in number, would have only L 248 a half [shadow],¹⁰¹ and [by this half shadow] the middle atom [of the body] would be bisected, and so the implication is that there would be a division, which is the desired logical goal.

Now, Euclid has demonstrated¹⁰² that every line validly may be bisected. Thus, [in a body] a line the atoms of which are odd in number validly may be bisected, and the middle atom validly may be bisected, so the implication is that there would be a division [in a body composed of atoms].

e. If a line should be assumed to be composed of three atoms with another atom over one of [the line's] two extremities,¹⁰³ and if the line should move to the right and the [upper] atom should move to the left, and if [at the same time the upper] atom should [attempt to] move to a point above the second [atom], then that would be impossible, because the second atom [simultaneously] would be moving to the space of the first atom [on the right].

¹⁰¹ The MS (f. 122b) has an illustration and note in the margin as follows:

...
 \ This [third atom] being the middle one, its bisection is admissible.

¹⁰² MS gl: This is the answer to, "If it should be objected", that is, if it should be objected that we do not admit that every body is receptive to division in half, then we reply, "[Euclid] has demonstrated..."

¹⁰³ An illustration and note is in the margin of the MS (f. 122b) and in the text of T 110 thus:

This is because if the [upper] atom had [attempted a transition] to a point above the second [atom], then implicitly it would not have moved, although the assumption was that it MS 123a was moving, so this would be a contradiction.

And if the [upper] atom should move to a point above the third [atom from the right], then the [upper] atom would [appear to] have traversed two atoms while the one below it¹⁰⁴ had traversed only one atom. Thus, the time duration, and the motion-change, and the distance would be divided.

Regarding the time duration [here], the [divisibility] would be because in time duration-(a) in which the [atom] below it traversed one atom, the [upper] atom traversed two atoms. So, time duration-(b) for the [upper] atom to traverse [only] one atom would be half of time duration-(a).

Regarding the motion-change, the [divisibility] is because the movement of the [upper] atom across the extent of one atom is [i.e., it appears to be only] half [the extent covered by] the movement of the [lower] atom.

And regarding the distance, the [divisibility] is because the divisibility of [both] the time duration and the motion-change [together] imply the divisibility of the distance, on account of the correspondence between them.

f. An atom¹⁰⁵ has a shape, because it is a space-occupying entity and every space-occupying entity is a limited entity, and every limited entity has a shape, so an atom would have a shape.

Now everything having a shape would be either a sphere or something else, because, if [only] one boundary limit should comprehend it then it would be a sphere, otherwise [it would be] something else.¹⁰⁶

If [the atom] should be a sphere, and if it should be assembled with other atoms, then there would be T 116 gaps between them,¹⁰⁷ for we know that by inherent necessity there are gaps between spheres that are placed beside each other. These gaps are not large enough to accommodate atoms like those that are assembled beside each other, but these gaps do accommodate [atoms] smaller than are these [others], and therefore, the divisibility [of the atom] would be implied.¹⁰⁸

¹⁰⁴ MS gl: Meaning the first atom in the line [from right].

¹⁰⁵ MS gl: Assuming that it exists.

¹⁰⁶ MS gl: [I.e., it would be] polygonal [muḍallaʿ].

¹⁰⁷ T: "between each pair of them" [baynahumā].

¹⁰⁸ MS gl: Because of the inherent necessity [deriving from] the fact that [within

Moreover, because the junction of the atoms so assembled would not be total since gaps occur between them, the divisibility [of the atom] would be implied by inherent necessity in the fact that the junction would not be total.

However, if the atom should not be a sphere, that is, if more than one boundary limit should comprehend it, then there would be angles in the atom, and the atom would be divisible, since each of [the angles] would be smaller than the atom.¹⁰⁹

g. If a handmill turns, and when the large ring farther from the center of the mill traverses [a distance of] an atom then the smaller ring nearer the center of the mill either would traverse

1. less than an atom, so the atom would be divisible, which is the desired conclusion; or

2. it would traverse a whole atom, so there would be an equality of the motion-change of the smaller ring and of the larger ring in [their] swiftness or slowness, but that necessarily is impossible, as it would imply that while the larger ring would turn one revolution the smaller ring would turn one revolution and more¹¹⁰ [than the other], but this would be contrary to what is perceived by the senses; or,

3. the smaller ring at one time would traverse [a distance of] an atom MS 123b and at another time it would be at rest, so [clearly] the parts of the handmill would be coming loose.¹¹¹ L 249

It would be likewise [in the case of] a three-pointed compass, if one point should be fixed while the other two turn [freely], then [from this] the implication would be either

4. that the atom would be divisible, or

5. that the two [compass] points would be equal in their movement, or

6. that [the parts] were loose. As the last two alternatives are false, divisibility [of the atoms] is indicated.

the atom] what is facing [mā ʾilāʾ] the gap of every atom would be different from what is not facing the gap.

¹⁰⁹ MS gl: Because the side of an angle would be smaller than the sides [of the polygon] [al-ḥulūʾ].

¹¹⁰ MS gl: Because it would be equal in its motion, but less in the distance.

¹¹¹ MS gl: Even if they should be of iron, which would be impossible.

Baydawi said:

L 249, T 116

The philosophers say a body is a continuity in itself and divisible without limit

[After giving their objections to the theory that the body is composed of atoms the philosophers] then stated their position that the body therefore is a 'continuous contiguity'¹¹² in itself' and is receptive to divisions without end.¹¹³

The receptivity to these [divisions] would not be within the continuity factor because that [factor] vanishes when [the divisions] take place, while the receptivity remains along with the [division] that has been received. Thus, there would be some other factor that is receptive to [both] the continuous contiguity and the discontinuous separation. This [other factor] is called 'primal matter' or 'matter', while the continuous contiguity [factor] is called a 'form'.¹¹⁴

One should understand that the proof demonstration of [both] parties [i.e., philosophers and Mutakallimun] prohibits this division from being one in actuality, but requires [it to be] a division by 'estimation'.

No one should say that a division by estimation would be a nearly collapsing argument that had led to admitting that the division would be a mere disengagement. Indeed, [all] the atoms assumed to exist would resemble one another, so that what was true between any two of them would be what was true between any other two, and therefore, what was true between a pair that were distinctly separate would be what was true between a pair that were continuous, and vice versa.

¹¹² The translation of this word [ittiṣāl] as 'continuous contiguity' will be used occasionally, following Richard M. Frank's *Beings and Their Attributes*, p. 40. "Contiguity" tightens up the notion of 'continuity'.

¹¹³ Baydawi gives a summary of the long process of thought and debate that went into the formation of this theory. Ibn Sina in his *Isharat* [2:31 ff.] turns from polemics with the atomists, and states that [the body] is [continuous], in itself, just as it appears according to [our] sensate experience of it. With further short statements he builds the theory "of the philosophers." F.D. Razi points out [*Muhassal*, p. 119, n. 1] that the theory of the body as a composite of primal matter and form is not original with Ibn Sina, nor even a special emphasis of his, but rather, 'all the philosophers' supported it.

¹¹⁴ 'Primal matter' [hayūla]; 'matter' [māddah]; 'continuity factor' (= continuous contiguity) = 'form' [ṣūrah]. F.D. Razi in his *Muhassal* (pp. 118-119) summarizes the theory as given by Ibn Sina.

a. For our part, we [i.e., Baydawi's point of view] ask why it would not be admissible that a body

1. should be compounded of atoms different in [their] matter, or

2. should become individuated [again] so that gaps would be prevented, and

3. that those [newly individuated] atoms should be receptive [both] to continuity and to discontinuous separation.

b. And if the body's continuity should be granted, then why would it not be admissible that

4. that 'continuity' be [designated] the body's 'unity', and

5. the 'discontinuous separation' [be designated its] 'plurality', and

6. the 'receptive substrate' [be designated] the 'body' [itself]?¹¹⁵

Isfahani says:

L 249, T 116, MS 123B

The philosophers say a body is a continuity in itself and divisible without limit

When they had established that it was impossible for a body to be composed of indivisible atoms, whether these would be limited or unlimited in number, the philosophers stated their position that the body therefore is a 'continuity in itself', just as it is to sense perception.

Indeed, sense perception does judge that there is a continuity of the body, but [to posit and] establish the fact of the [body's] articulations is a matter for the intellect, not for sense perception. Therefore, if the argument for the actual occurrence of atoms should be invalidated, then in the same transaction the argument for a body being a continuity would be established, just as its continuity is a fact of sense perception.

However, [the body] would not be an indivisible entity, but rather, it would be receptive to division in any one of several aspects: either, [physically] by breaking or by cutting, or [intellectually] by estimation or by assuming it as a premise. So, if the body is not a composite

¹¹⁵ In his *Muhassal*, p. 119, F.D. Razi gives the second half of this paragraph [beginning with b.] as an anonymous question, following upon the statement of the philosophers' theory of the body. Here Baydawi shows that his point of view is affirmative to the question, and he adopts it as his own.

of atoms unreceptive to division, then necessarily [at least] one of the aspects of this division [to which it is receptive],¹¹⁶ especially estimation and assumption, would continue endlessly. Thus, the body, while it is a continuity, is receptive to divisions without end.

Now, the factor receptive to these divisions would not be the continuity, because that [continuity] would vanish when the divisions would take place, and the [first] factor receptive to the divisions necessarily would remain with the divisions. [This is] because the [first] factor that is receptive must remain together with the [second factor] that is received, and the [first] factor—that is receptive to the [second] factor—then would be characterized by the [second] factor that is received; and the [first] factor [that has been so] characterized necessarily must remain as long as its attribute [i.e., the second factor] exists.

Therefore, the [first] factor, that is receptive to the divisions, would be something other than the continuity, and it would be receptive both to the continuity and to the discontinuous separation. That entity that is receptive both to the continuity and to the discontinuous separation is called 'primal matter' or 'matter', while the continuity is called a 'form'.

Then [Baydawi] stated L 250 that one must understand, moreover, that the proof demonstration used by the two parties [Mutakallimun and philosophers] prohibits the division [of bodies] from being one in actuality but requires that it be a division by estimation. Indeed, the proof demonstration of the Mutakallimun prohibits [such] an actual division,¹¹⁷ while the philosophers' proof demonstration requires that it be by estimation, the philosophers' motive being no more than MS 124a to establish division by estimation [as valid]. Thus, there is really no contradiction between the two parties, as [with both parties] it is admitted that the parts of a body are not to be divided in actuality, but they are divisible by estimation.

This requires an observation, for the Mutakallimun have asserted that those [body] parts [i.e., atoms in their formal doctrine] would not be receptive to division either [physically] by breaking or by cutting, or [intellectually] by estimation or by assumption.

Then [Baydawi] stated that no one can say that a division by

¹¹⁶ MS gl: i.e., [at least one of these]: breaking, cutting, estimation, or assumption.

¹¹⁷ MS gl: i.e., one of physical separation [al-infikākiyah].

estimation would be a nearly collapsing argument that had led to admitting that the division would be a mere disengagement. Indeed, since [all] the parts assumed to exist would resemble one another, division, in its various aspects, that is, [physically] by breaking or by cutting, or [intellectually] by estimation or by assumption, would produce in what is divided a duality in which the nature of each of the two parts would be the same as the nature of the other, and also [would be the same as] the nature of one that is outside [i.e., outside the place of division, but] is matching in kind.

Thus, what would be true between any two [parts] would be what would be true between any other two. Therefore what would be true between a pair [of parts],—that were [already] distinctly separate from [the standpoint of] that continuity which [in itself] eliminates any physical disjoining into two [sections],—would be what would be true between a pair [of parts] that were [still] continuous, and vice versa. That is, T 117 the physical disjoining that eliminates continuity would be true between any two [still] in continuity just as it would be true between two made distinctly separate. So the implication would be that a division by physical disjoining would be admissible.¹¹⁸

Our position is that that would be implied only if the hypothetical [separated body] parts should be alike, but this is ruled out. It is admissible that a body be composed of parts that are varied in quiddity, so there would be no implication that what would be true between [any given] two [parts] would be true between any other two.

But if it should be granted that the hypothetical [separated body] parts would be alike¹¹⁹ then it would be admissible that those parts would become individuated in such a manner as to hinder physical separation; and so those parts would be receptive both to continuity with each other and to discontinuous separation from each other.

An objection might be raised that a [three-dimensional body having] extension, from the standpoint of its extension, would be a specific nature that occurs, so its necessary features would not vary

¹¹⁸ MS gl: And so a contradiction between the two parties [philosophers and Mutakallimun] would be implicit.

¹¹⁹ MS glosses: 1. I.e., [alike] in quiddity, assuming that it would be a simple body;

2. Then the fact that division by estimation was admissible would not imply that division by physical separation would be admissible.

in individual examples of it. The extension [in bulk] of a single simple entity, that would be divisible by estimation but not by physical separation, would be the same [nature] as the extension [in bulk] that would be the totality produced from that simple entity and from another simple entity closely associated with it,¹²⁰ for each of them would require [only] what the other would require, and then the desired conclusion would be implicit.¹²¹

Regarding the fact that the [body] parts would be individuated in a manner that hinders physical separation, this is granted. This hindrance would be external to the nature of [the] extension [in bulk], and the [philosophers] admit that a physical separation would be impossible on account of some hindrance MS 124b external to the nature of the extension [in bulk].

[Baydawi] continued, and said that if the continuity of the body should be granted, then why would it not be admissible to say that the continuity would be the body's unity, and the discontinuous separation its plurality, and the factor receptive to both of them [would be] the body?¹²² The continuity and the discontinuous separation would then be two accidental qualities that follow the body around [in existence]. Thus, in its essence that body would be [neither] a continuity nor a discontinuous separation, so it could be L 251 a subject-substrate for [both] the continuity and the discontinuity.¹²³

An objection could be raised,¹²⁴ that if it should be established that the body would be a continuity in itself, then this continuity, that is, [its] extension [in bulk], would not be an accident inherent in the body, but rather, the extension [in bulk] would be the factor that constituted the body.

¹²⁰ MS gl: As are composite entities.

¹²¹ MS glosses: 1. I.e., the contradiction [between parties] would be real;

2. What would be true between the two distinctly separated ones would be true between the two that are a continuity, and vice versa.

¹²² MS gl: And then there would be no need at all to posit 'primal matter'.

¹²³ MS gl: But if the body in its essence should be a 'continuity', then it would not be valid for it to be a subject-substrate of [both] the 'continuity' and the 'discontinuity'.

¹²⁴ MS gl: This applies to the author's statement that then they [i.e., the continuity and the discontinuity] would be two accidents that follow . . .

Baydawi said:

L 251, T 117

Corollaries to the philosophers' doctrine of a body

a. The [philosophers] held that the '[corporeal] form' is inseparable from 'primal matter'.

1. This is because [the corporeal form] cannot be separated from either limitation or from shape. The necessary cause of both of these [factors] would not be either

a) a general corporeality, or

b) any of its concomitants, otherwise, the part and the whole would be equivalent in these two factors [i.e., limitation and shape]; nor would [the necessary cause] be

c) an agent, otherwise, the form would be independent in passivity, because [the agent] is what supports within it whatever attributes there may be.

2. And [form is inseparable from matter] because [the form] is always receptive to an estimated division, and everything receptive to an estimated division¹²⁵ would be receptive to a physical division, and everything receptive to a physical division would have matter, according to what has preceded the statement of these premises.

b. Nor would [the reverse be true, i.e., that] primal matter would be separable from [the corporeal form].

1. This is because, if an entity having a position [i.e., in external reality] should be considered as an abstraction and should be made divisible in all dimensions, [then] it would be a body; otherwise, it would be a point or a line or a surface. But, if it should be an abstraction not having [an externally real] position and if a [corporeal] form should come upon it, then it would become an entity with [an externally real] specific position through the ability of something other [than itself]. Thus, something [merely] admissible would have been preferred [for existence] without there being an agent of preference.

2. And because, if [primal matter] should be made an abstraction, it would be an existent in actuality having a predisposition for the [corporeal] form. But a single entity may not require both potentiality and actuality.

¹²⁵ Reading with T, MS Garrett 989Hb, and MS Garrett 283B. The scribe of L has omitted the two clauses following.

c. Thus, the [primal matter] would possess [another] factor that would require this potentiality, that is, [of being] primal matter, and so the primal matter would have [another, second] primal matter, for the [first] primal matter would have need of [the other] in order to continue and to occupy space, and the [corporeal] form would have need of matter in order to become clearly distinct and to assume its shape.

d. Furthermore, matter never exists apart from another [second] form [in addition to the corporeal form], [namely], a 'substantial form' [or, a particularizing form].¹²⁶ Otherwise, bodies would not have any variety in their structures, their possibilities, their qualities, their natural positions, or in the facility or difficulty with which they assume a shape.

You must understand that the basis of these statements is a denial of the [existence of an] agent of free choice, although the truth consists in the fact of [His] confirmed existence.

In spite of that, an objector could argue:

a. that the passivity of the form in itself would be admissible, but that the receptivity to a division by estimation would not necessitate the receptivity to actual separation; and

b. that abstracted matter would require a particular position [i.e., in existence],—on condition

1. that a [corporeal] form would be closely associated with it, and

2. that a single entity would be the source of many,—although receptivity [i.e., to a form] would not be an effect, and the presence of the matter in actuality would not be a requirement of its essence; and

c. that they [the objector's opponents in the debate] be required to show what it is in the substantial form that would be the necessary cause of a [particularizing] difference.

d. And [further, the objector] might assert that the antecedent elemental states and the various kinds of matters in the celestial spheres that make a thing what it is would be the cause of the variation in the accidental qualities and the structures [of reality].

¹²⁶ [al-ṣūrah al-naw'īyah].

Isfahani says:

L 251, T 117, MS 124b

Corollaries to the philosophers' doctrine of a body

Four corollaries were drawn from the [philosophers'] doctrine that a body is a composite of primal matter and [corporeal] form.

- a. [Corporeal] form is inseparable from primal matter;
- b. Primal matter is inseparable from [corporeal] form;
- c. How primal matter is linked to [corporeal] form;
- d. On establishing the substantial form.

(a.) [The First Corollary is that] The philosophers held that the [corporeal] form would be inseparable from the primal matter, for two reasons. L 252

1. The first [reason corporeal form is inseparable from primal matter] is that [corporeal] form is inseparable from limitation and shape, since [corporeal] form is limited by the boundaries of the dimensions.¹²⁷ Thus, it would be inseparable from limitation, and everything inseparable from limitation would be inseparable from shape, since the shape is the structure of an entity by which one or more boundaries enclose it with a view to its demarcation.¹²⁸ Thus, a limited [i.e., finite] entity would be bound to have a shape, and, [corporeal] form being limited, it would have shape. Thus, the [corporeal] form would be inseparable from [both] limitation and shape.¹²⁹

The necessary cause of both limitation and shape would not be a general corporeality¹³⁰ nor any of its concomitants. This is because, if the necessary cause of limitation and shape should be a general corporeality or any of its concomitants, then a part would equal T 118 the whole¹³¹ in [both] limitation and in shape. But the conclusion is false, and the premise is likewise.

To explain the logic used here, it is that if the necessary cause of them both [i.e., limitation and shape] should be a general corpore-

¹²⁷ MS glosses: 1. Length, width and depth; 2. I.e., corporeal form, that is, corporeal extension in bulk [al-imtidad al-jismi].

¹²⁸ This is Euclid's definition of 'shape': "That which is enclosed by one or more boundaries," quoted under the rubric 'Figure' in *Dictionary of Scholastic Philosophy* by Bernard Wuellner, Milwaukee: Bruce Publishing Co., 1956.

¹²⁹ MS gl: 'Shape' then would be a concomitant of 'limitation', since 'limitation' would be surrounded either by one boundary, as a sphere, or by several boundaries, as a cube, and the shape would be the structure that results from that enclosure.

¹³⁰ MS gl: I.e., what is a commonality among all bodies.

¹³¹ T and MS Garrett 989Ha: [la-sāwa' al-juz' al-kull]; the MS [la-tasāwa' al-juz' wa-al-kull].

ality or any of its concomitants, then every part assumable within the form would have [for its concomitants] whatever limitation and shape the whole [of the form] would have. MS 125a

As for the falsity of the conclusion, that is because if a) a part and the whole of the [corporeal] form should be equal both in limitation and shape, and if b) it should be assumed [then] that the form would be [made] slightly less, then what there [actually] would be of it in existence would be [identical to] what there would have been if it had been assumed¹³² that it would be much more. In that case there would be no part or whole, nor any little less or any much more,¹³³ as it would be prohibited at the start to assume any whole or part, since assuming their placement would only necessitate their removal.

Furthermore, the necessary cause of the limitation and shape [i.e., in the corporeal form] would not be an agent¹³⁴ for making a distinction. This is because, if the necessary cause of limitation and shape should be that agent [of distinction], then the corporeal form¹³⁵ would be independent in its passivity and in its receptivity to both breakage and linkage, as a distinction between bodies would not be conceivable except by their breakage away from each other or their linkage with each other. But the conclusion is false for reasons that have preceded, in that the receptivity to passivity and [the receptivity] to breakage and linkage are properties of matter made concomitant to its existence.

Therefore, the necessary cause of limitation and shape would be the factor supporting [them], namely, 'primal matter', together with the characteristics within it that are [its] various predispositions.¹³⁶

Thus, it is established that the '[corporeal] form' would be inseparable from the 'primal matter'.

2. The second of the two [reasons that the [corporeal] form would be inseparable from the primal matter] is that the corporeal form always

a) would be receptive to a division by estimation, and everything receptive to a division by estimation

¹³² Here the scribe of L mistakenly inserts another [la-kāna].

¹³³ Here the MS has omitted the [lā] opening the phrase.

¹³⁴ MS gl: i.e., the 'form'.

¹³⁵ MS gl: i.e., [that form responsible] for corporeal extension [lil-imtidād al-jismī].

¹³⁶ MS gl: i.e., receptivity to 'separation' and 'linkage', and to 'expansion' and 'contraction'.

b) would be receptive to a physical division, and everything receptive to a physical division

c) would have matter, in accordance with what has preceded the full statement of these three premises.

Therefore, corporeality¹³⁷ would not be separable from [primal] matter.

(b.) The Second Corollary is that the primal matter is inseparable from the corporeal form, [also] for two reasons.

1. The first [reason primal matter is inseparable from corporeality] is that, if the primal matter should be abstracted from a [corporeal] form having a position [i.e., in reality],—that is, [the corporeal form] would be such that it could be sensately indicated,—and, if [that primal matter] should be divided in all dimensions, then that primal matter, being [thus] isolated from the corporeality,¹³⁸ would constitute a body having bulk [i.e., in reality]. L 253 But that would be impossible, because then the implication would be that the [first] primal matter was in possession of [another, second] primal matter [of its own].

But if [that [first] primal matter] should not be divided in all the dimensions, then that primal matter would be a point [in space] if it should not be divided at all, or [it would be] a line if it should be divided in [only] one dimension, or [it would be] a surface if MS 125b it should be divided in two dimensions. However, the conclusion¹³⁹ is false [for reasons as follows].

Regarding the point [the conclusion is false], since [the point] could not possibly have being unless it would inhere in something else, otherwise it would be an indivisible atom, while at the same time primal matter does not inhere in anything else, it thus would not be a point.

Regarding the line, surface, and geometrical teaching body, since each [of these] would be a continuity in their essences and would be receptive to division, they would need something to support them as none of them could be a support.

If the primal matter should be abstracted from the [corporeal]

¹³⁷ MS gl: I.e., corporeal form.

¹³⁸ MS gl: [I.e.,] corporeal 'form'.

¹³⁹ MS gl: I.e., that the primal matter would be a 'point' [in space] when there would be no division, a 'line' when the division would be in one dimension, and a 'surface' when the division would be in two dimensions.

form without having a position [i.e., in reality], and if a [corporeal] form should come upon it, then it would become [a body] having a specific position¹⁴⁰ through the ability of an entity other than itself;¹⁴¹ and thus, a possible entity would be given preference [for existence] without an agent of preference.¹⁴²

Our position is that if a [corporeal] form should come upon [the primal matter] then [the latter] would become [a body] having a specific position. This is only because

a) if the [corporeal] form should come upon it and if no position for it should result, then the implication would be that of a body existing [in reality] without a position, which would be impossible by rational intuition; and

b) if all [possible] positions for it should result, then the implication would be that one body was existing in many places, which also would be impossible by rational intuition; and

c) if some indefinite position for [the primal matter] should result, that also would be impossible by rational intuition. So the indication would be that [the primal matter] would become [a body] having a specific position.¹⁴³

Moreover, our doctrine [that the primal matter becoming a body with position] would be “through the ability of another entity [than itself]”, is only because that given position would not be more appropriate than some other. For as that position was a possibility, so also another would be a possibility; thus, what was [merely] admissible would become what was preferred [for existence] without there being an agent of preference.

Furthermore, our position is that that position would not be more appropriate for [the primal matter] than would some other, only because if that specific position should be more appropriate to it than would some other, then either the priority would be [from the

¹⁴⁰ MS gl: Because it would be impossible to be a body without having a ‘position’. [From ‘Ibri’s commentary on Baydawi’s *Tawālīf*.]

¹⁴¹ MS gl: In spite of it being granted that primal matter would not have a specific position [i.e., in reality].

¹⁴² MS gl: Because its relationship to all the various times [ahyān] and positions [awdā] would be equal, its being specified for a particular position through the capability of an [entity] other than that position [itself], the case would become one of its being preferred [for existence] without there being an agent of preference, which would be impossible.

¹⁴³ MS gl: Since it would be a distinct existent, it would have a distinct position.

fact] that it occurred before the [corporeal] form came upon [the primal matter], which would be impossible, because the primal matter, before the [corporeal] form came upon it, was not linked with the position that occurred in it together with the [corporeal] form, so this position would not be more appropriate to [the primal matter] than would any other; or the priority would have occurred after the [corporeal] form had come upon the primal matter, which also would be impossible, because the primal matter would be equally related to all the positions that the [corporeal] form to come upon it would require. Therefore [the primal matter] would be equal in its relationship to all of them, both on account of its own essence and on account of the [corporeal] form, MS 126a and so no preference would occur.

Thus it would be established that that specific position would not be more appropriate for [the primal matter] than any other, so for that position to occur for [the primal matter] would require a preferring of what is [merely] admissible, without there being an agent of preference, which would be impossible.

2. The second of the two [reasons that primal matter would be inseparable from the corporeal form] is that if the primal matter should be abstracted from the corporeal form then it would be an entity existent in actuality and it would have a predisposition for a [corporeal] form. Now, a single entity would not require [both] a potentiality and an actuality. Thus, the [first] primal matter¹⁴⁴ would have a factor that would require this [corporeal] form, and the factor that would require this [corporeal] form would be [some other] primal matter;¹⁴⁵ thus, the [first] primal matter would have L 254 [some other] primal matter.

(c.) The Third Corollary is on how primal matter is linked to a [corporeal] form.

Since it has been established that both the primal matter and a [corporeal] form would be inseparable from one another, indeed, that each of them is in need of the other, but not in a way that would imply a circular argument, [we note] then

1. that the primal matter has need for a [corporeal] form—both for [the primal matter's own] continuance and its occupation

¹⁴⁴ T omits "the primal matter" here.

¹⁴⁵ L begins the sentence here, having skipped the whole first part.

of space, not from the aspect that [the form] should be T 119 this [one particular corporeal] form, but from the aspect that it would be any one or another [corporeal] form.

Indeed, if the primal matter should not have need for a [corporeal] form both for [the primal matter's] own continuance and its occupation of space, then the primal matter would be an entity existing and occupying space but without having a [corporeal] form, which would be an impossibility because of what has been said earlier. Furthermore,

2. a [corporeal] form has need for [primal] matter—in order that [the form] might be made distinct and be given shape. And, from the aspect that [the matter] would be this [particular] primal matter, [the form would need it] in the way an effect needs a receptive cause. Now, primal matter is a cause receptive to the individuation of the form; indeed, the individuation and distinction of the [corporeal] form come to it through its limitation and shape, and these two factors come to it by way of primal matter, as this is the supportive and receptive [substrate] for both of them.

Thus, it is apparent that the need of each one [i.e., corporeal form and primal matter] for the other would not be in the manner of a circular argument.

(d.) The Fourth Corollary is on establishing the existence of the 'substantial form'.

1. [Primal] matter never exists apart from another form¹⁴⁶ [i.e., one in addition to the corporeal form]. This is because,

a) if [primal] matter should exist apart from the other [additional] form, then bodies would not have any variation in their structures, or in their places of being, or in their qualities such as heat, cold, wetness, and dryness, or in their natural positions,¹⁴⁷ or in the ease of their taking shape or separating [from it], this being a concomitant of elemental wet bodies,¹⁴⁸ or in the difficulty [of taking shape and separating from it], this being a concomitant of elemental dry bodies,¹⁴⁹ or being incapable of receptivity to separation and shape, this being a concomitant of celestial bodies.

¹⁴⁶ MS gl: Namely, the 'substantial form'.

¹⁴⁷ MS gl: As [being able to walk] upright in humankind and being inclined horizontally in animals.

¹⁴⁸ MS gl: Like water.

¹⁴⁹ MS gl: Like earth.

b) But this conclusion¹⁵⁰ would be false MS 126b on account of the variation of the bodies in these structures, places of being, and qualities. To explain the inherent necessity of the logic used here, it is that these structures, places of being and qualities are [all] different, but not from any necessity of their essences.

2. These [differences] are made necessary only by causes that require them. Now, it would not be possible for the corporeal form,—that is similar in all bodies,—to require them because [these qualities] are different.¹⁵¹ Nor would it be possible for the primal matter to require them, because the substrate of a thing may not be the agent for the inherent within it. Therefore, the causes of [the differences] would be different factors also, other than the primal matter and the [corporeal] form.

a) Those [difference causing] factors must be closely associated with the primal matter and the [corporeal] form, because a transcendent factor would be related on an equal basis to all bodies.

b) Moreover, [the difference causing factors] must be linked with primal matter, because they require whatever is linked with affective [i.e., reaction producing] qualities, as are [both] the ease and the difficulty¹⁵² of [primal matter's] receptivity to separation and to joining.

c) Furthermore, [the difference causing factors] must be forms,¹⁵³ not accidental qualities, since it would be impossible for a body to occur without being qualified by one of these [causal] factors.¹⁵⁴

Now, if matter should be devoid L 255 of this [substantial [i.e., particularizing]] form, then bodies would not show any differentiation in these structures [that have been mentioned], because of the inherent necessity excluding an effect when its cause is lacking. One should understand that the basis for making these statements, namely, estab-

¹⁵⁰ MS gl: I.e., that there would be a lack of variation in the bodies.

¹⁵¹ Reading with the MS, MS Garrett 989Ha, and MS Garrett-Yahuda 4486: [li-kawnihā mukhtalifah], where the antecedent would be "these qualities" [are different].

L and T: [li-kawnihā ghayr mukhtalifah], where the antecedent is evidently taken to be: "the corporeal form, alike in all the bodies, because it is [not different]."

¹⁵² Reading with L, T, MS Garrett 989Ha, and MS Garrett-Yahuda 4486: [wa-'usrihi]. The MS has: [wa-ghayrihi].

¹⁵³ MS gl: I.e., substance.

¹⁵⁴ MS gl: I.e., the substantial form [al-ṣūrah al-naw'iyah].

lishing primal matter, the corporeal [form] and the substantial form, and the impossibility of separating one of them from the other, is in denying [the role of] an agent of free choice. But the truth [of the matter] is that the [divine] agent of free choice is an established existence.

Now, if we assume the established existence of an agent of free choice, the existence of primal matter and of [corporeal] form are admissible, each of them without the other, and the variation among bodies in their structures, places of being, qualities, and positions are admissible, without there being a substantial form.

But with a theory denying an agent of free choice, an objection can be made to every one of these conclusions, [as follows]:

Objections—

[Objection to 1st corollary, 1st reason]:

(a.-1.) Regarding the first of the two reasons given in explaining the impossibility of separating the corporeal form from primal matter, [the objector] grants the possibility of passive action for the corporeal form by itself apart from its primal matter, in that he says that the necessary cause of limitation and shape [i.e., in the corporeal form] would be a distinguishing agent.

[Baydawi's] statement is: "If the necessary cause of the limitation and shape MS 127a should be a [distinguishing] agent, then the corporeal form would be independent in its passive action. But the conclusion is false."

Our [Isfahani's] position is that we do not grant that the conclusion would be false. Indeed, the corporeal form's passive action by itself apart from its primal matter would be admissible, as the fact that a body being receptive to limitation and shape would not require that it be receptive [also] to separation and joining. Shapes may differ without there being any separation in a body, as the shapes of a wax candle will change in accordance with its various configurations.

An objection might be raised that limitation and shape in bodies are inconceivable except where there is a continuity between one [of them] and the other and a discontinuous separation of one [of them] from the other. And neither the continuity nor the separation can be realized without the factor of support.¹⁵⁵

¹⁵⁵ MS gl: This being primal matter, for the passivity of the form is not by itself without its primal matter, but rather through it.

[Objection to 1st corollary, 2nd reason]:

(a.-2.) As to the second reason [for the impossibility of separating corporeal form from primal matter] an objector might admit that the receptivity to division by estimation would not necessitate a receptivity to actual separation, for reasons that have been given.¹⁵⁶

An objection might be raised that the reply to the impossibility has also been given.¹⁵⁷

[Objection to 2nd corollary, 1st reason]:

(b.-1.) Regarding the first of the two reasons indicating the impossibility of separating primal matter from the [corporeal] form, an objector might admit that abstract matter by itself alone would require a definite position, on condition that the [corporeal] form would be closely associated with it. An explanation of this is to say that we grant neither that if primal matter should be abstracted from the [corporeal] form then it would not have a position, nor that if a [corporeal] form should come upon it and it should come to have a particular position with the possibility of [having] a different one, then [implicitly] it would be a case of something [merely] admissible being preferred [in receiving existence] without there being an agent of preference.

Such would be implied only if the [necessary] cause of the particular position should be the primal matter alone. But [on the other hand], if the factor necessitating the particular position should be the matter abstracted under the condition that the [corporeal] form would be closely associated with it, in such a way that the primal matter in its abstracted state would be characterized by successive attributes one of which would require that [the primal matter] be particularly assigned to one of the possible positions after the [corporeal] form should come upon it, then there would be no implication that it was a case of something that was merely admissible

¹⁵⁶ MS gl: As when [Isfahani] said [regarding Baydawi's] first statement [above, on the philosophers' doctrine] [ka-qawlihi fi qāl al-awwal], "Our position is that that would be implied only if the hypothetical parts [of a body] should be alike, but this is ruled out."

¹⁵⁷ MS gl: As [Isfahani] said regarding [Baydawi's] first statement [above on the philosophers' doctrine], "An objection might be raised that a [three-dimensional body having] extension, taken as [such] an extension, would be a specific nature that occurs, so [its necessary features] would not vary . . ."

L 256 being preferred [for receiving existence] without there being an agent of preference.¹⁵⁸

An objection might be raised that if the primal matter, T 120 as being qualified by these attributes, should be given a particular existence in some position, then it would no longer be an abstraction; but if [the primal matter] should not be given such a particularization, then, while having these attributes, its relationship to [each and] all [possible] positions would be one [and the same], and so the implication would be that it was a case of what was merely admissible being preferred without there being any agent of preference. MS 127b

[Objection to 2nd corollary, 2nd reason]:

(b.-2.) Regarding the second reason demonstrating the impossibility of separating primal matter from the [corporeal] form, an objector might admit the fact that a single entity might be the source for many. A full statement of this would be to ask why it would not be admissible that primal matter should be the source for both potentiality and actuality, assuming that it would be abstracted from the [corporeal] form and that it would be something existent in actuality and receptive to the [corporeal] form.

[Baydawi's] statement is that there would be the implication that a single entity would be the source of many [entities].

Our [Isfahani's] position would be to ask, "Why do you hold that it is not admissible for a single entity to be the source of many?" What has been said [on your part] to prove the lack of its admissibility in causes and effects has already been shown to be spurious. The source for primal matter having being in actuality would not be the primal matter itself, but rather, the source of its having being in actuality would be its existential cause.

[No objection is made regarding 3rd corollary (c.)]

[Objection to 4th corollary]:

(d.) Regarding the proof given in establishing the substantial form, an objector could demand to know from the philosophers what is the necessary cause for the variation coming from the substantial form. [He might say that] just as bodies differ in the accidental qualities

¹⁵⁸ MS gl: But rather, the implication would be that what was admissible was preferred by its 'agent of preference' [i.e., that one of [the matter's] successive attributes would require that it be given a 'position' in existence].

that you [the philosophers] have mentioned, so they differ in the forms that you have set up as the sources of those accidents. Therefore, if the specification of bodies through those accidental qualities should be caused necessarily by substantial forms,¹⁵⁹ then their specification by this [type of] form¹⁶⁰ would make it necessary that they have their being through other forms. Then what would be said about [these latter forms] would be like what was said about the first one, so then implicitly the argument would be an infinite series.

(1.-a.) [In answer, the philosophers] might argue that the specification of a particular elemental body through [its] particularizing substantial form would take place only because [its] matter, prior to the origination of that form within it, had been causally modified by another [corporeal] form through which its matter had become predisposed to receive the appropriate form.

(2.-a.) Furthermore, [in answer, the philosophers] might argue that the specification of celestial bodies through their substantial forms would take place because every celestial sphere would have matter differing in quiddity from the matter of [every] other celestial sphere, and every [kind of] matter would refuse to receive anything except the [appropriate] form that would occur within it.

1.-a. [In rebuttal of these answers], the objector then could assert

a) that whatever the factor [may be], [that the philosophers] theorize to be the necessary cause for the specification of a particular body through its particularizing [substantial] form, [the body's special nature is derived in fact] from [its] prior elemental states, and

b) that from the various [kinds of] celestial matters [there is derived in fact] the cause for the variance in the accidental qualities and structures [of bodies]; and

c) therefore, it may be held¹⁶¹ that elemental bodies MS 128a are each one made specific through a particular [new] quality, because prior to its being characterized by this quality it had been causally modified by another [earlier] quality on account of which its matter had been predisposed to receive the appropriate [new] quality.

¹⁵⁹ MS Garrett 989Ha reads, "should make it necessary that there be a 'substantial form'" [yūjib an yakūn surah naw'iyah].

¹⁶⁰ The MS reads, "by these forms" [bi-tilka al-ṣuwar].

¹⁶¹ The MS alone reads, "it is indicated" [ta'ayyana]. Other sources: [yuqāl].

2.-a. Regarding celestial bodies, every one of them would be made specific by a particular quality because its matter would not receive anything L 257 except that quality. In such a case [as the objector has set forth] the need to establish this [substantial] form would collapse.

But another objection could be raised that the [first] objector does not have the right to demand from [philosophers] by what cause the variation of a substantial form is made necessary. A body attains [its nature] as a species through the [particularizing action of] the substantial form, and indeed, a body cannot possibly attain [its nature] without being given subsistence by one of these substantial forms. Further, the accidental qualities mentioned are specifically applied to a body that has been particularized upon obtaining its substantial form. And so, the substantial form does not require what the accidental qualities mentioned do require, namely, dependence upon something closely associated with the body;¹⁶² but rather, [the substantial form] requires that its dependence be upon the [Divine Transcendent and] Incorporeal Agent.¹⁶³

Baydawi said:

L 257, T 120

3. *Classes of bodies*

The philosophers hold that bodies are either simple or composite.

Simple bodies are spherical, because a unitary nature does not require variegated structures. They are divisible into celestial bodies and elemental [terrestrial bodies], the first [of these divisions comprising] the celestial spheres and the celestial orbs.

Simple bodied celestial spheres

The celestial spheres established by astronomical observation are nine, the first [to be considered of these nine] being the greatest sphere [or] the 'glorious throne', the body encompassing all other bodies. A number of reasons point to [the existence of the ninth and greatest sphere].

¹⁶² MS gl: [I.e.,] the substantial form.

¹⁶³ MS gl: [al-fā'il al-mufāriq] Who is God Most High.

a. Bodies are limited, for a reason we shall give, and therefore, a body would be the ultimate limit of them all.

b. The 'direction [of view]' constitutes the mutual link between a 'line of sight pointing' and the 'goal' which [a body] in motion-change seeks to attain.¹⁶⁴

1. Therefore, the 'direction [of view]/goal' is something existent, not something abstracted [from external reality], and it is not a body because it is not divisible. If the case should be otherwise, and if the moving [body] on arriving half-way [to its goal] should stop, then the direction of view/goal would not include what is beyond [the point to which it had attained]. In other words, if the [body's] motion-change should be away from the direction of view/goal, then [what was beyond the point attained] likewise [would not be included in the direction of view/goal], while if [the motion-change] should be toward the direction of view/goal, then the direction of view/goal would include what was beyond [the point attained]. Thus [the direction of view/goal] would be corporeal [in its reference].

2. Moreover, the factor delimiting [the direction of view/goal] would be a single body. [This is so] because if this delimiting body should be doubled, and

a) if one [of the two resulting bodies] should not encompass the other, then that which is near [i.e., to the body in motion-change] would be limited by both [bodies], but not that which is remote [i.e., from the body in motion-change]. But

b) if [one of the two resulting bodies] should encompass [the other], then the body encompassed would be inside [the other. This is true], since

c) the [larger] encompassing body would delimit the bounds of the [smaller] body that is near [to the body in motion-change] by [the larger body's] encompassment [of the whole system]; and

d) [the larger encompassing body would delimit the bounds of] the body that is remote by the fact of [that larger body's own] containment of the center [of the whole system].¹⁶⁵

3. Further, [that single body delimiting the direction of view] would be simple,—since if [that body] should be otherwise [i.e., com-

¹⁶⁴ [al-jihah muta'alliq al-ishārah wa-maḡṣad al-mutaḡarrrik bi-al-wuṣūl ilayhā].

¹⁶⁵ [. . . idhā al-muḡīṭ yuḡaddid al-qurb bi-muḡīṭihi wa-al-bu'd bi-markazihi]. Baydawī's compacted concise statement must be interpreted by one's imaginative reconstruction with the help of Isfahani in the commentary following.

posite], then dissolution validly would be predicated of it, as [the dissolution] would be in the direct line of gradual motion-change going toward the direction of view/goal, since the direction of view is something belonging to the body but not on account of it,—and therefore, [that single body] would be spherical.

c. Astronomical observation confirms the fact that the celestial orbs and the celestial spheres are moving in a [regular] daily motion-change and in other irregular motions. So, necessarily there would be a body that encompasses them [all] and causes them to move in their daily motion-change.

1. This reason demonstrates [the existence of a ninth sphere, and it does not demonstrate that [the ninth sphere] is encompassed by all [other celestial] bodies.

2. Regarding the eight remaining [celestial spheres], these are demonstrated [to exist]

a) by the difference in the motion-changes of the celestial orbs [i.e., the planets and stars embedded in the celestial spheres], and

b) by the fact that motion-change by [the orbs] themselves would be impossible because no tearing and piercing of the celestial spheres would be possible.

An objection could be raised that if it should be granted that the tearing and piercing [of the celestial spheres] would be impossible, then why would it not be admissible that every celestial orb would have a domain [in which] it would move alone or with mutual support by the other celestial orbs.¹⁶⁶

¹⁶⁶ The material covered in Baydawi's present Topic 3 may be found generally in Ibn Sina's *Isharat*, vol. 2, from page 166, where the running headline announces "A Remark [ishārah] On Establishing the Directions of View [al-jihāt]", to page 271 where ends a discussion of the interaction of the elements with each other in forming blends and building blocks for composite bodies. The bulk of the discussion is by Nasir al-Din Tusi, commenting on Ibn Sina's writing.

In contrast, F.D. Razi in his *Muhasal*, pages 140 and 141, very compactly relates most of these same subtopics, grouped under the two heads "The [Simple] Celestial Body" and "The [Simple Terrestrial] Elemental Body", as the first subdivision from his statement [Philosophers are agreed that] "a body is either simple or composite." Again Nasir al-Din Tusi is the commentator, and he doubles the amount of material under each heading to fill the two pages respectively. No mention is made here of originality in Ibn Sina's coverage.

Razi fills out the picture of the universe as a series of concentric transparent spheres when he describes the four terrestrial elements. Each element is described as having its own sphere about the earth, which is the central celestial sphere and

Isfahani says:

L 257, T 121, MS 128a

3. *Classes of bodies*

Bodies are either simple or composite. That is because either there is not in them a composite of potentialities and natures, or there is [in them] a composite of potentialities and natures. If there should not be in them a composite of potentialities and natures then [the bodies] would be simple L 258 as are water and air, but if there should be in them a composite of potentialities and natures then [the bodies] would be composites as are plants and animals.

Simple bodies are spherical in shape, a sphere being a body that is encompassed by a single surface inside which there is a [central] point from which the radii going out in all directions [to this surface] are equal.¹⁶⁷ The shape that a simple body naturally requires

the first elemental sphere in the universe. About the sphere of earth then is the sphere of water (which naturally flows to the lower land levels), then the sphere of air, and then the sphere of fire, which reaches up toward the sphere of the moon. There is a continuing interaction of generation and corruption between and among the adjacent elements, especially between earth and water, water and air, and air and fire, some quantity of one gradually changing into the other.

Baydawi and Isfahani, both writing in the mode of lecturer with students, present the material systematically and progressively. Both, we think, make an original and distinct effort to clarify the organization and presentation of the material for students at different levels of understanding.

Moving to look at a scholar close after Baydawi and contemporary with Isfahani, we see 'Adud al-Din Iji writing in his book *al-Mawaqif fi 'ilm al-kalam*, the fourth Mawqif on substances, (which precisely corresponds to Baydawi's Book 1, Section 3) from p. 199 ("The body is divided into simple and composite") through p. 224 where Iji takes up the topic of blends and their ramifications.

A constant feature of Iji's *Mawaqif* is that he is using geographical and topographical metaphoric terms as division markers in his text. In treating so many abstruse theological factors, sometimes this geographer's vocabulary comes to appear a bit clumsy. Further, Iji is also constantly listing reasons for his conclusions. We readily agree that this is a necessary and helpful feature, one that no doubt Iji had learned well from Baydawi's outlines, either in person directly, being in attendance with his tutor, or indirectly from his tutor, who was a registered student with Baydawi. In the books to which we have been referring, Ibn Sina and F.D. Razi perhaps only seem not to be as addicted to this good habit as Iji. We can surmise then from this survey, although it is neither deep nor extensive, that this routine scholarly practice, exemplified by Baydawi, has influenced Iji notably and well.

¹⁶⁷ In the margin at this point in the MS [f. 128a] there is a figure to illustrate the description. A circle in red ink with the outside designated surface, has a note, "the spherical body is under the surface." Inside this main circle at the center is a very small circle in black ink indicated as, "this is the [central] point," encircled by red dots with the note, "this is the small [central] point with the lines [radii] going out from the point to the surface."

is the sphere, because the factor that determines its required shape is its [own] nature, and that is a single unit. Further, [the shape's] receptive substrate is a simple body that is also single [in kind], and the effect of an agent single [in kind] upon a receptive substrate single [in kind] would not be variegated, so necessarily it is spherical. If the case should be otherwise, then its structural shapes would be variegated, but a nature single [in kind] within a receptive substrate single [in kind] does not require variegated structural shapes.

Simple bodies are divided into the celestial bodies and the elemental [terrestrial bodies], the celestial bodies being either the celestial spheres or the celestial orbs. MS 128b

Simple bodied celestial spheres

The way to establish the existence of the celestial spheres is through deductive inferences¹⁶⁸ drawn from the motion-changes found to exist by [astronomical] observation.¹⁶⁹ [This is done] after determining¹⁷⁰ the [relevant] philosophical principles, namely:

- a. Every motion-change will be derived from a body that of its own self is in motion-change;
- b. Anything that is contained within [the body that is in motion-change of its own self] will have motion-change as an accidental quality;
- c. There must be a continuity in the circular motion-changes of the simple celestial bodies;
- d. There must be a mutual conformability in [the movements of these celestial bodies]; and
- e. There cannot be any tearing or piercing of the structures [of the spheres].

Further, the way to know about the existence of the celestial orbs [i.e., the stars and planets] is through observation, and nothing else.

The universal celestial spheres, those that have been proven to exist through observations done in the method established by [our] contemporary scholars, are nine [in number]. These encompass others in such a way that the [inner] concave surface of the containing one

¹⁶⁸ L and T: [istidlālāt]; the MS and MS Garrett 989Hb: [istidlāl].

¹⁶⁹ MS gl: By astronomical observation is meant that study which gives knowledge of the manner of operation [kayfiyah] of the universe.

¹⁷⁰ L & T: [taqrīr]; MS: [taqarrur].

is in contact with the [outer] convex surface of the one contained, and the center of the totality is the center of the earth.

One of them,—[the ninth one that] is not set with celestial orbs,¹⁷¹ and that encompasses the other eight [spheres] and causes the whole [system] to move in a daily motion-change,¹⁷²—is called the ‘greatest sphere’, the ‘highest sphere’, the ‘glorious throne [of God]’, the body encompassing all other bodies, and the delimiter of [all] the regional directions. [Three] reasons indicate its existence.

a. The first [reason supporting the existence of the ninth sphere] is that bodies are limited, for reasons we shall mention.¹⁷³ Therefore, it is a body that is the ultimate boundary of [all] bodies, and the body that is the ultimate boundary of [all] bodies necessarily must encompass them all.

If the case should be otherwise, then the implication would be that [the universe ends in] a void that is boundless, although our assumption is [that the universe] is limited.

b. The second [reason supporting the existence of the ninth sphere] is that a ‘direction of view’ is an existent entity and has a position.

[This reason is valid because the ‘direction of view’] is [both]

1. a sensately perceived ‘line of sight pointing’, and it is also
2. the ‘goal’ which a body in motion-change seeks to attain.¹⁷⁴

Now, whatever is [both] a sensately perceived line of sight pointing, and the goal which a body in motion-change seeks to attain, would be an existent entity and not an abstraction; that is, it would have a position [within existence]. Therefore, a direction of view is an existent entity, not something abstracted from material [reality], that is, it has a position [within existence].

Baydawi’s expression, “which [a body . . .] seeks to attain”, is a reference to the reply to a supposed interpolation the gist of which is that an objection would be raised not granting that everything that was the goal of a body in gradual motion-change must be an existent entity. Indeed, whiteness might be the goal of a body in

¹⁷¹ L 258 gl: From this fact Ptolemy demonstrated that if [the greatest sphere] had been set with celestial orbs [law kāna mukawkaban] then we would have seen these celestial orbs, because the spheres are transparent and have no [color] so they do not screen our vision from seeing what is behind them . . . [from Jurjani’s commentary on Ijī’s *Mawaqif*].

¹⁷² MS gl: From the east to the west in a day and night as one revolution.

¹⁷³ MS gl: In Topic 5 of this first chapter.

¹⁷⁴ [li-annahā mushār ilayhā ishārah ḥissīyah wa-maqṣad li-al-mutaḥarrik bi-al-wuṣūl ilayhi].

gradual motion-change from blackness, but still [the whiteness] is not an existent entity.¹⁷⁵ As fully stated, the reply would be that whatever is the goal L 259 that a body in gradual motion-change seeks to attain,—but has not yet done so,—is an existent entity. And a body in gradual motion-change from blackness to whiteness is seeking to attain the whiteness, not to arrive at it [as if it were a location].

3. Now, a 'direction of view/goal' is not a body, since a direction of view/goal is not divisible, while every body is divisible.¹⁷⁶ We [Isfahani] have stated that a direction of view/goal MS 129a would not be divisible only because, if

a) it should be divisible, and if

b) the body in gradual motion-change should attain what is assumed to be the nearer of two parts [i.e., of the divided direction of view/goal] to the body in gradual motion-change, and if

c) [the body in motion/change] should stop, then that [stopping place] would constitute the [new] direction of view/goal, not what is beyond it. Thus, of what we had assumed to be the direction of view/goal, only part would be the [new] direction of view/goal, not the totality itself. But

d) if [the body in gradual motion-change] should not stop, then inevitably either

1) it would move away from the [original] direction of view/goal, and then the case would be the same [as in (c)], that is, the point attained would be the [new] direction of view/goal, not merely part of the [original] direction of view/goal; or

2) it would move toward the [original] direction of view/goal, and then the direction of view/goal would constitute what was beyond [i.e., as originally], and so what we had assumed [i.e., in alternative (c)] to be the [new] direction of view/goal would not be such [at all].

An objection might be raised that the division would not be restricted, and thus it would be admissible that there be gradual motion-change within the direction of view/goal, neither away from it nor toward it. The answer [to this objection] would be that the

¹⁷⁵ MS gl: For, the fact is that a gradually changing entity may take something nonexistent as its goal.

Our authors seek to present and explain the complex notion of motion-change with its own notion of direction of progress to the goal intended.

¹⁷⁶ MS adds: So the direction of view would not be a body.

gradual motion-change within a divided entity would be either away from a direction of view/goal or toward a direction of view/goal, so the two divisions in the first example would be repeated. Moreover, the entity within which the gradual motion-change takes place would be a spatial distance, not the direction of view. And if the direction of view/goal should be an existent entity and not an abstraction, and it is not a body, then it would be corporeal [in its reference]. Furthermore, the direction of view would be in two classes, one class changing according to the assumption, as right and left, before and behind, and the other class not changing, and that [second] one would be whatever is natural, as above and below. The directions of view that do change, according to the assumption, would be without limit [in number], since the direction of view is the extremity of an extension, and it is possible to assume that any body would have an unlimited number of extensions, and that every one of their extremities would be a direction of view. The judgment that there are [just] six directions of view [i.e., right, left, before, behind, above, and below] is well known, but it is not [precisely] true.¹⁷⁷

4. The agent delimiting the two directions of view by nature would be a single body, since naturally the two directions of view,—[in this context] I mean above and below,—would have a delimiting agent that inevitably would designate them and delimit them. This is because

a) the direction of view would be corporeal and undivided and it [therefore] would constitute a boundary,¹⁷⁸ and [it is because]

b) a boundary does not subsist in itself, but rather in an entity other than itself, and that other entity designates and delimits it.

c) Now, as a direction of view would have a position, its position by inherent necessity would be within that delimiting [body]. Moreover, it would not be admissible for its position to be [either] within a void, the existence of which is excluded, or within a homogeneous plenum,¹⁷⁹ in such a way that any one of the boundaries as-

¹⁷⁷ MS gl: I.e., the judgment would not be true, but the directions of view would be real.

¹⁷⁸ MS gl: [I.e.] a terminus [nihāyah].

¹⁷⁹ L 259 gl: In which there do not exist boundaries that differ in [their] realities, since it would be a body having no boundary.

Jurjani in his *Ta'rifat* defines it thus: The homogeneous plenum consists of the celestial spheres and the elements except for the convex surface of the greatest

sumed T 122 to exist in [the plenum] would constitute one direction of view, and some other of its boundaries would constitute another direction of view opposite [the first], [this haphazard state being] due to the lack of [a particular] one of those boundaries having priority for being a direction of view and another [particular one] for being another direction of view naturally differing from [the other].

d) Therefore, it is determined that [the position of the direction of view] should be in an entirely different entity, external to that with which it is homogeneous, and that entity without a doubt would be a body, or [at least] something corporeal because of the necessity MS 129b for it to be host to a position, and on both assumptions it inevitably would be a body.

5. Moreover, the agent delimiting both [of these] directions of view by necessity is a single body. This is because,

a) if [the delimiting agent] should be plural, and if one part of [the agent] should not be encompassed by the other part, but rather these two parts [of the agent] should be two bodies entirely distinct [from each other] within the position, then the near one of the two would be delimited L 260 but not the remote one. Indeed, neither of the two bodies would be delimited by [the position] except the one near it,¹⁸⁰ while the one remote from it¹⁸¹ would not be delimited. Then neither of the two directions of view would be delimited by either one of the two [parts of the agent], although the delimiting agent necessarily must delimit [both] of the two directions of view at the same time. Or,

b) if [the delimiting agent] should be plural, and if one of the two [parts of the agent] should be encompassed by the other, then the situation of the [one] encompassed by [the other] in the delimiting process would be inside,¹⁸² [and it would be] a situation occurring in the delimiting process as an accidental quality, since the encompassing part would be sufficient¹⁸³ by itself to delimit both directions of view. [This would be true] since the near [direction of

sphere which is manifestly the [final] surface, the homogeneity in the plenum consisting in the fact that its parts are naturally compatible.

¹⁸⁰ MS gl: I.e., the near one's direction of view and that would be upward.

¹⁸¹ MS gl: I.e., the remote one's direction of view and that would be downward.

¹⁸² MS gl: I.e., it would have no effect upon the delimiting process.

¹⁸³ MS gl: Because if it should be an extended body [mustadidan] then it would have an encompassing surface and a center.

view]¹⁸⁴ would be delimited by [the theoretical greatest body's] encompassing [surface], and the remote [direction of view]¹⁸⁵ would be delimited by [the theoretical greatest body's] center point, [that center point] being the boundary [point] most remote from [the greatest body's] encompassing surface. So, it is determined that the agent delimiting both directions of view would be a single body.

Thus, [the case is that] either both directions of view would be bounded by [the single body] in view of its being single, or they would not be so bounded in view of its being single. The former alternative would be impossible, for the two natural directions of view necessarily would be the two extremities of an extension. And if the single body, in view of its being single, should delimit what would be adjacent to it, I mean what would be near, then it would be excluded from delimiting what would be opposite to it, I mean what would be remote, for what would be remote from it would not be delimited.

So, it is established that the delimiting would be by a single body, not because it would be single, but rather because it would have a center and an encompassing surface. Thus, the direction of view that is near, I mean what is above,¹⁸⁶ would be delimited by [the body's] encompassing surface, while the direction of view that is remote, I mean what is below, would be delimited by the boundary point most remote from it, namely, the center.

Moreover, both directions of view¹⁸⁷ [logically] require that a [single] body encompass the whole [universe]; but as for [that single body] being the ninth sphere, no, [they do not so require.]

6. Further, the body delimiting the directions of view would be simple. This is because,

a) if it should be composed of bodies having different natures¹⁸⁸ then dissolution would be truthfully predicated of it, since the parts of every body composed of differing natures truly dissolve, these being various bodies, and they would go back to their natural domains. And

¹⁸⁴ MS gl: [I.e.], upward.

¹⁸⁵ MS gl: [I.e.], downward.

¹⁸⁶ The MS varies making 'above' and 'below' indefinite without a definite article. L, T, and MS Garrett 989Ha add the definite article.

¹⁸⁷ MS gl: This would be an objection.

¹⁸⁸ L & P: [tibāʿ]; MS: [tabāyīʿ].

b) the dissolution would take place in a direct line of gradual motion-change proceeding from one direction of view to another direction of view. Thus,

c) the direction of view would belong to [the body], but would not be on account of it,¹⁸⁹

d) because then it would be necessary for the directions of view to be prior to the [assumed] parts of the delimiting body, and to the body [itself], and

e) therefore the direction of view MS 130a would belong to [the body], but would not be on account of it, and

f) thus, the delimiting agent would not [in fact] be a delimiting agent, but this would be contrary [to the hypothesis].

Now, if the delimiting agent should be a simple body, then it would be spherical¹⁹⁰ because of what you have already learned. From this it is known that a straight directional force would not be in the nature of the agent delimiting the directions of view. If it should be otherwise, then the direction of view would belong to [the body], but would not be on account of it, and then the delimiting agent would not [in fact] be a delimiting agent.

c. The third [reason supporting the existence of the ninth sphere] is that astronomical observations bear witness to the fact that the celestial spheres and the celestial orbs [i.e., the stars and planets] move with a swift daily motion-change from the east to the west, and with other irregular motion-changes, so necessarily there would be a body that encompasses them all and causes them to move in their daily motion-change.

7. This reason demonstrates [the existence of] a ninth sphere, and it does not demonstrate that [the ninth sphere] is encompassed by all [other celestial] bodies.

8. The eight remaining spheres are proved to exist by the variation in the motion-changes of the celestial orbs and the impossibility of their having motion by themselves, because it would be impossible for the spheres to be torn and pierced.¹⁹¹

¹⁸⁹ L 260 gl: The direction of view would be limited [mutahaddidah] to it [lahu], not limited by it [lā bihi]. [From "*Sharḥ J*"—presumably Jurjani's gloss on Isfahani's commentary.]

¹⁹⁰ L 260 gl: Then implicitly it would encompass all bodies, otherwise, its external direction of view would not be bounded.

¹⁹¹ L 260 gl: In that the spheres would be torn and penetrated [yatakharraq] and the celestial orbs move about among them as fish move in water.

a) Thus, under the Greatest Sphere is the Sphere of the Fixed Stars¹⁹² L 261 that moves slowly from west to east having two poles and an equator, these being other than the poles and equator of the Greatest Sphere. This one [the eighth] is also called the Sphere of the Zodiac.

b) Then [seventh] comes the sphere of Saturn;

c) then [sixth] the sphere of Jupiter;¹⁹³

d) then [fifth] the sphere of Mars;¹⁹⁴

e) then [fourth] the sphere of the sun according to [the general] opinion;¹⁹⁵

f) then [third] the sphere of Venus;¹⁹⁶

g) then [second] the sphere of Mercury;¹⁹⁷

h) then [first] the sphere of the moon.¹⁹⁸ These [last] seven are called the [concentric sphere] likenesses to the sphere of the Zodiac.¹⁹⁹ All these [foregoing] then would be the 'universal spheres'.

With regard to the 'minor spheres',²⁰⁰ each of the universal major spheres—those related to the seven mobile planets but not the sun,—includes

1) a [smaller] sphere revolving in an epicycle²⁰¹ that does not encircle the earth, being situated] in the compact space outside the center [of the earth and between each pair of adjacent major spheres]. The convex [outer] surface of the epicycle comes in contact with each of the two surfaces²⁰² [of the compact space] at two points of which the one farther from the center of the earth is called

¹⁹² MS gl: It completes its cycle [dawrah] in 24,000 years, while Ptolemy says it is in 36,000 years.

¹⁹³ MS gl: I.e., that completes its cycle in twelve years.

¹⁹⁴ MS gl: That completes its cycle in two years less a month and a half.

¹⁹⁵ Glosses: 1. MS—That completes its cycle in a year. 2. L 261:—He said "according to the general opinion" only because some [authorities] said the sphere of Venus is above the sphere of the sun, and some said the sphere of Mercury is above it.

¹⁹⁶ MS gl: That completes its cycle in a year also.

¹⁹⁷ MS gl: That completes its cycle in about thirty years.

¹⁹⁸ MS gl: That completes its cycle in a year.

¹⁹⁹ [Concentric sphere] likenesses to the Sphere of the Zodiac—MS gl: Spelled [mumaththalât li-falak al-burûj]; L and T, MS Garrett 989Ha: [bi-falak].

²⁰⁰ MS gl: I.e., [the term] 'minor spheres' means spheres that are encompassed by the 'universal spheres'.

²⁰¹ [falak tadwîrîn].

²⁰² I.e., for instance, the concave surface of sphere six and the convex surface of sphere five.

an 'apogee' and the one nearer to it a 'perigee'.²⁰³ Further, [each universal major sphere] envelops

2) a [second, larger] epicyclic sphere eccentric to the center of the earth²⁰⁴ [but] encompassing the earth, [while yet] separate from its neighboring likeness [i.e., the next larger concentric sphere]. Their two convex surfaces and their two concave surfaces²⁰⁵ come in contact at two points, of which the one farther from the center of the earth is called the 'apogee',²⁰⁶ while the one nearer to it is called the 'perigee'.

As for the sun, one of the two [lesser] spheres is sufficient for it, that is, [either] the eccentric one [on the larger epicycle] or the one revolving [on the smaller epicycle], without preference being given to one of them rather than the other. However, MS 130b Ptolemy saw fit to assert as a certainty that the eccentric one was preferable.

[The astronomers] have affirmed that Mercury has another sphere that is also eccentric, so Mercury has two [minor] spheres ['a' and 'b'] both being eccentric, [and one ['a'] being also epicyclic] [i.e., both these spheres are in addition to the sphere that is epicyclic only]. The [universal major concentric sphere] likeness [i.e., presumably either Mercury or the next larger to it] envelops this one ['a'] of the two, as the rest of the [universal major] concentric spheres envelop their [next smaller] likenesses. This one ['a'] is called the 'revolving one', and this 'revolving' [epicyclic sphere] goes about and around and envelops the other ['b'] [i.e., the second eccentric sphere], as the rest of the [universal major] concentric spheres envelop their likenesses. This other one ['b'] is called the 'deferent'²⁰⁷ [i.e., as it is the bearer] of the [first eccentric and] epicyclic sphere ['a'].

Moreover, [the astronomers] affirm that the moon has another [i.e., a third minor] sphere, that envelops its [other minor] spheres, [the] eccentric and the epicyclic. That [third] sphere is called the

²⁰³ Apogee [dhīrwah] also [awj]; perigee [ḥadīq].

²⁰⁴ L, T, and MS Garrett 989Ha: [wa-falak khārij al-markaz 'an markaz al-ard]; the MS: [wa-falak khārij 'an markaz al-ard].

²⁰⁵ I.e., (1) of the sphere revolving on the larger epicycle and (2) of the adjacent concentric universal sphere. The MS clarifies the references by a coded indication.

²⁰⁶ These lines parallel the lines just preceding, except for the term used for 'apogee' [awj]. The manner of contact between two convex surfaces may be suggested to be)-(. That between two concave surfaces is not clear from the description, but perhaps may be suggested as a touching by overlapping, thus (←- (.

²⁰⁷ The 'deferent' [al-ḥāmil].

'oblique' one. Now, the moon's major concentric sphere encompasses this 'oblique' sphere, and so [in the case of the moon, its] major concentric sphere is called the greater concentric sphere.²⁰⁸

So, the total number of spheres is twenty-four: of these [twenty-four], the centers of ten conform to the center of the earth, the centers of eight are eccentric to the center T 123 of the earth, and six are spheres on epicycles.

The Highest Sphere [ninth] moves with the primary swiftness of daily motion,²⁰⁹ and all else besides it moves in accordance with [but not equal to] its motion.

The Sphere of the Fixed Stars moves with a secondary slow motion, and all else besides it moves in accordance with its motion.

Each of the other spheres has its own specific way of motion, except for the six [concentric sphere] likenesses that are above the moon. They move only according to the two motions mentioned.

Of the celestial orbs seven of them are planets that move, each one in a sphere in the order set forth. And of the planets that move there are five 'bewildered ones',²¹⁰ namely, those other than the sun and the moon.

As for the fixed [celestial orbs] [i.e., the stars], they are innumerable. More than a thousand and a score of them have been observed, all in the eighth sphere, namely, [the Sphere of the Fixed Stars, or] the Sphere of the Zodiac, and they may be in many of the spheres.

[Baydawī], our author, said that an objection could be raised that if it should be admitted that the tearing and piercing [of the spheres] would be an impossibility, then why would it not be admissible

²⁰⁸ [al-jawzahīrī] Hazarding as a surmise a suggested explanation for the nature of this unique feature of the moon, based on the following quote from the article "Moon" in the *Columbia Encyclopedia*, [2nd ed., N.Y.: Columbia Univ. Pr., 1950, p. 1317], is offered:

On the moon there shines earthlight (sunlight reflected from the earth); but the earthlight shines about 40 times brighter than the light of the full moon. The fullest phase of this earthlight occurs when we have a new moon. When there is a crescent moon, that part of the disk not lighted directly by the sun can be seen more faintly illuminated by the earthshine.

Such doubly reflected light would not be seen on any other celestial sphere; thus, the moon sphere's occasional two-tone appearance could have earned the colloquial nickname [literally], "testes of the [spotted] cat" [jawz hīrī]!

²⁰⁹ The typesetter of T misplaced the term 'highest', making it modify 'movement' rather than 'sphere'.

²¹⁰ [mutaḥayyirah] I.e., the planets known to the ancients as seeming to move in very irregular orbits—Redhouse Dictionary.

L 262 for each [mobile] planet to have a domain separate from the compact space between its sphere [and the next] that would resemble a belt with the diameter of [the planet's] compact space equivalent to the diameter of the planets, and [each planet] would move by itself. Thus, the planets would move,²¹¹ or the belt would move through the dependence of the planets upon the belt.²¹² Then there would be no implicit tearing and piercing [of the spheres], nor anything of what you have mentioned.

However, those who have studied astronomy and have considered the fundamental principles on which the problems of astronomy are based know that this MS 131a objection has fallen [from consideration].

Baydawi said:

L 262, T 123

Corollaries to the existence of the spheres: their ethereal nature

[The celestial spheres] are completely [and transparently] ethereal in nature, since if they had been given coloration then human vision would be veiled from seeing anything beyond them.

The spheres are neither hot nor cold, otherwise, heat and cold would dominate the elemental world because of their proximity.

The spheres are neither light nor heavy; otherwise, in their natures there would be a straight directional force.²¹³

The spheres are neither wet nor dry, because the ease of [both] the configuration and the attachment [i.e., of matter] and their [respective] difficulty are realized only through a straight motion-change [i.e., between these two extremes].

The spheres are not receptive to motion-change that is quantitative. [This is] because, if there should be an increase in the convexity of an encompassing surface, then above it a void would be implied, which would be impossible. The concavity [of the encompassing surface] would be like its convexity, so, anything that would be impossible for [the concavity] would be impossible for the convexity. And if its concavity should not change, then that [change]

²¹¹ MS gl: [L.e.], on the belt.

²¹² And all would be on a single sphere without any tearing or piercing.

²¹³ "Now it must be noted that the only simple motions are straight (equal to up and down) and circular." S.H. Nasr, *Islamic Life and Thought* [Albany, 1981], p. 87, in discussing the cosmology of Aristotle.

would be impossible in [a lower] convex surface that is surrounded by [the upper concavity]. If it should be otherwise, then either an interpenetration [of the adjacent spheres] or an occurrence of a void between their two surfaces would be implicit.

And [the same nonreceptivity to quantitative motion-change applies] likewise to [a sphere's] concavity, as it would be like the convexity in all its nature. However, in this there would be a tolerance [for error], because the impossibility of increasing the convexity would be because of its lack of [additional] space that is its condition [for existence]. But that fact does not imply that [the sphere's] concavity has commonality with it.²¹⁴

Isfahani says:

L 262, T 123, MS 131a

Corollaries to the existence of the spheres: their ethereal nature

The first [of two corollaries to the existence of the nine celestial spheres] is that the spheres are completely [and transparently] ethereal.

That is, [to begin with], they have no color, since if they had been given coloration then human vision would have been veiled from seeing what is beyond them, as anything given coloration has the function of veiling human vision from seeing what is beyond it. But this conclusion would be obviously false, for sometimes we do see the celestial orbs.²¹⁵

An objector says that this requires investigation,²¹⁶ as the fact is, water, glass, and crystal are visible because they have been given coloration, but they do not veil one's vision from seeing what is behind them. Now, [even] if this [objection] should be granted still it would not apply to the eighth and ninth spheres, because nothing is visible behind the ninth sphere to prove that it is transparent, while the ninth, even though it is beyond the eighth, does not have any celestial orb on it to prove that the eighth is transparent.

²¹⁴ Professor E.E. Calverley pointed out here that Baydawi's statements in the preceding passage (at L 262) were translated by Carlo Alfonso Nallino and published in English in *The Encyclopedia of Religion and Ethics*, v. 12: p. 99b, s.v. "Sun, Moon and Stars (Muhammadan), Section 7: Celestial Physics." Nallino said that Baydawi's theory had been held by most [Muslim] writers since about 400/1009.

²¹⁵ MS gl: Although they would be beyond the spheres.

²¹⁶ L 262 gl: The objector is the Imam [Fakhr al-Din] Razi. In summary, his view is that the logical conclusion would not be granted.

Another objector could deny the fact that water, glass, and crystal,—that do not veil one's vision from what is behind them,—are colored, and that their being visible does not require that they be colored. The [category of] visibility is not confined within [the category of] coloration, as everything that is colored is visible, without the reverse [being true]. Further, this same person could object that if the eighth and the ninth spheres were colored they would be visible; but the conclusion would be false, so the premise also would be false. L 263

The spheres altogether are neither hot nor cold; since, if they should be either hot or cold, then they would be extremely hot or cold. Indeed, if at any time [a situation in] nature should require some factor, so long as there would be no hindrance [from within nature], then that factor would come into being in the most complete way possible. That being so, heat and cold would come to dominate the elemental world on account of its proximity to [the spheres]. But the conclusion is false, so the premise is likewise.

This demonstration proof is weak, for there are various kinds of heat that differ in their real nature but are called heat by analogy, and it is admissible that the natures of the spheres would require one or more kinds [of heat] that would not be an extreme, and likewise in the case of cold. However, on the hypothesis that the heat and cold in [the spheres] would be extreme, still there would be no implication that the heat [or cold] would come to dominate MS 131b the elemental world, since it is admissible that [the spheres] might not have any effect through [the heat and cold] on whatever would be close to them.

It would be preferable to say that the spheres altogether are neither hot nor cold, nor are they characterized by anything derivable from these [factors],²¹⁷ otherwise, there would be in them a directional force either to upward or downward [motion-change],²¹⁸ so they both would be receptive to straight motion. But this is not so, for reasons we shall explain.

The spheres altogether are neither light nor heavy, neither absolutely nor adjunctively [to something else]; otherwise, they would be receptive to straight motion.

²¹⁷ MS gl: I.e., [that] is related to them.

²¹⁸ MS gl: Because 'lightness' is an expression for the principle of an upward inclination [of motion-change] and 'heaviness' is an expression for the principle of a downward inclination [of motion-change].

The spheres altogether are neither wet nor dry. If it should be otherwise, then they would be receptive either to an easy configuration and attachment [of matter], or to a difficulty with them, whereupon they would be receptive to straight motion, since neither the ease of the configuration and adherence [of matter] nor the difficulty of these two [processes] would be achievable except by straight motion, inasmuch as the ease of both configuration and of adherence necessitates the capacity for tearing and repair and for separation and joining together, that are all made necessary because of straight motion.

The spheres altogether are not receptive to quantitative motion-change, T 124 neither as expansion or contraction, nor as growth or shrinking.²¹⁹ This is because, if there should be an increase in the convex surface of the all-encompassing sphere,²²⁰ then the implication would be that above it there would be a void,²²¹ which is an impossibility. Further, its concave surface would be like its convex surface in specific nature, so there would become impossible for its concave surface what already was impossible for its convex surface. And if the concave surface should not change by way of increase or decrease, then any change in the convexity of the [next inner] surface encompassed would be prevented whether of increase or decrease. Otherwise, an interpenetration [i.e., of sphere surfaces] would be implied on the hypothesis of an increase, or the void [would be implied] on the hypothesis of a decrease.

Likewise, any change, whether of increase or decrease, would be prevented for the concave surface that would be encompassed, because its concave surface would be like its convex surface in its total quiddity. However, in this case there would be some tolerance for corruption and error, since the impossibility for increase in the convex surface of the sphere encompassing all bodies would not be because of itself, but rather because of the lack of space that would be the condition for an increase in size. From that fact there would be no implication that the concave surface would have any commonality with [the convex surface] in this impossibility [i.e., of increase], because the condition, namely, [the nonavailability of] space, would be a verified reality.

²¹⁹ Reading with the MS alone, which adds the negating [wa-lā] before each of the last three preceding nouns.

²²⁰ MS gl: I.e., all the spheres.

²²¹ MS gl: [I.e.], towards which it moved.

But refuting this possibility [of corruption and error] by arguing that any change in the concave surface L 264 by increase or decrease would necessitate either an interpenetration [of the spheres] or the void, both being impossible, would not be sound reasoning. Indeed, it is admissible that there should be an increase or decrease by expansion or contraction; so, there would be no implication of an interpenetration [of the spheres].

It would be preferable to say MS 132a that [the spheres altogether] are not receptive to any quantitative motion-change that would require straight[-line] motion.

Baydawi said:

L 264, T 124

Corollaries to the existence of the celestial spheres: motion in circular rotation
[The nine universal celestial spheres] are in motion-change. This is because the minor [spheres] that have been assumed²²² to exist among them are all similar to each other. Thus, it is valid to predicate of each of [the spheres] that it would have a position, and that the place [of each one's position] would be that which had existed for each other one, and that that would not come about except through a circular [rotating type of] motion-change,²²³ and therefore, it would be valid to predicate a circular rotating motion-change of [the spheres].²²⁴

Now, everything of which circular rotating motion-change validly may be predicated would have within it the principle of a circular rotating directional force, and everything with that [force] in it would be moving in a rotating manner, due to the necessary presence of the effect when the cause has occurred.

Moreover, if every part [of the spheres] should remain in a particular position and in a particular space among [all] the parts of the totality of space, along with the admissibility of [having] some other position and space, then it would be a case of preferring without an agent of preference. However, these two reasons are refuted in the case of the [simple bodies of the] elements.

²²² L: [mafrūdah]; T: [muftaraḍah].

²²³ In theory, the 'circular' motion of the sphere must be a motion of 'rotation in place', since the spheres do not travel through the universe in great 'revolutions'.

²²⁴ L omits the repeated adjective, 'circular'.

Isfahani says:

L 264, T 124, MS 132a

Corollaries to the existence of the celestial spheres: motion in circular rotation

The [nine universal] celestial spheres are in motion-change.²²⁵

Now, because the minor spheres, assumed to exist among the celestial spheres, are all similar to each other, since the physical natures these assumed minor spheres have are a unity [in their nature], as the spheres are simple and so do not have different requirements, it is [therefore] valid to predicate that each one of them has a position, and that the place [of each one's position] would be that which had existed for each other one, since neither position nor place [for the position] were made necessary by the natures of the assumed minor spheres. Thus, transition from these positions and the places [for the positions] would be admissible. But that transition would be inconceivable unless there should be a directional force [for it], because motion-change without [such] a directional force²²⁶ would be impossible, so it is admissible that the directional force would be in their natures. Now, as only circular motion is possible for [the spheres], only a circular directional force would be present in their natures. So, by necessity the principle of a circular directional force would be actually in the spheres. This is because the principle of a natural directional force is one of the factors supporting the spheres, and it would be impossible if a factor that supports a body should be only a potentiality when the body would exist in actuality.

The existence of the principle of a circular directional force within a simple body indicates that it would be impossible for any hindrance to that directional force to issue naturally from [that simple body]. An outside hindrance is also excluded, since there would be no hindrance to the circular motion-change from outside [a simple body] except what would have either a directional force to straight motion or a directional force to compound motion,²²⁷ the existence of [the latter] being impossible for heavenly bodies. The existence in actuality of the principle of a directional force and the nonexistence of

²²⁵ MS gl: In a circular manner.

²²⁶ The MS has "without it."

²²⁷ MS gl: As the movement of a 'bicycle' ['ajalah], since it is compounded of both straight and circular [motion]. N.B.: This gloss evidently was written into the MS as late as the 1860's when 'bicycles' began to appear.

any hindrance both indicate the existence of the directional force in actuality. Therefore, in [the spheres] there is in actuality a circular directional force that is in accordance with nature. So [the spheres] are moving in a gradual circular motion-change.²²⁸

However, if each part of the sphere should remain in a particular position and in a particular space from among all parts of the totality of space, together with the option of having some other position and some other space different from [the first,] then it would imply that there had been a preferring without any agent of preference, since the parts assumed to exist would be like each other in their whole nature. But this conclusion would be false as no part of a sphere would remain L 265 in a particular position or in a particular space, as it would be moving in a gradual circular motion-change.

Our author states that these two reasons,²²⁹ indicating that the MS 132b spheres move with a circular [rotating] motion, are refuted in the case of the elements, for the parts assumed to be in the elements²³⁰ are all similar, and the elements are not moving in a gradual circular motion-change.

An objection might be raised that the elements have within them naturally the principle of a directional force to straight motion, so it would be impossible for them to have within them the principle of a directional force to circular motion. This is because it would be impossible for a simple element to have within its nature the principle of a directional force to straight motion [as well as having at the same time] in its nature what would hinder it from that [principle]. [And this would be] in contrast to the spheres, for straight motion in them would be impossible, but there is nothing in their nature which would prevent circular motion.

²²⁸ MS gl: That is due to the necessary occurrence of the effect—the circular motion—in the presence of an [effective] cause—the directional force to circularity.

²²⁹ A gloss in the MS identifies the two reasons here as the last two preceding paragraphs.

²³⁰ MS reads, “in them”, with a code referring to the antecedent. This abridgment, using a pronoun instead of the noun is a feature used more commonly in the MS than in L and T.

Baydawi said:

L 265, T 124

Simple bodied celestial orbs are fixed in the spheres

Regarding the celestial orbs [i.e. both stars and planets], they are simple bodies,²³¹ located upon [and embedded in] the celestial spheres. They all give out light except the moon, for it receives its shining light as a benefit from the sun. Bearing witness to this fact is the variation in [the moon's] light according to its nearness to the sun or its remoteness [from it].

Let no one say that perhaps [the moon] is a globe, one of whose two faces shines while the other is dark, and that it rotates about its own axis with a motion adjusted to the motion of the sphere, as in doing so [the moon's] eclipse contradicts this theory.

Isfahani says:

L 265, T 124, MS 132b

Simple bodied celestial orbs are fixed in the spheres

Regarding the celestial orbs, they are bodies that are simple, ethereal, and spherical, located upon [and embedded in] the celestial spheres. They give light of themselves, except the moon, for it receives its shining light as a benefit from the sun. Bearing witness to this fact is the variation of [the moon's] light in accordance with its nearness to the sun or its remoteness from it.

Let no one say that perhaps the moon is a globe, one T 125 of whose two faces gives light while the other face is dark, and that it rotates about its own axis in a movement adjusted to the motion of the celestial sphere of the moon,²³² in such a way that when the whole of the [moon's] shining side faces the sun then the whole of the dark side would be toward us. Then when the celestial sphere of the moon moves, this globe moves also with its motion-change adjusted to the motion-change of the sphere. So an edge of the shining face would appear to us, and to the same extent its opposite dark face on the other edge would disappear from us. Then every day the appearance of the [moon's] shining face would increase until

²³¹ T alone adds: [shaffāfah].

²³² L 265 gl: i.e., the moon moves about its own axis in a movement of position, adjusted to the movement of the sphere of the moon about the axis of the earth.

the movement of the sphere also would complete half a rotation, whereupon the movement of that globe²³³ also would complete half a rotation. That would be at the time of the [moon's mutual] confrontation [i.e., of both the observer and the sun]²³⁴ and [the moon] shows its whole shining face to us and we see a full moon.

However, if this theory should be held possible, then it would not be an absolute certainty that the light of the moon would be acquired from the sun. This is because in our view, the eclipse would deny this possibility, since the eclipse comes only at the time of the [moon's mutual] confrontation,²³⁵ and when the moon faces the sun [the moon's] whole shining side [also] would be toward us. So,—the intervention of the earth between [the moon] and the sun,—would that not require [the moon] to be in eclipse?²³⁶

Baydawi said:

L 265, T 125

The simple bodied elements: fire, air, earth, water

As for the [simple bodied] elements, they are [as follows]:

a. light in weight absolutely, this being fire, which is hot and dry, and touching the [surrounding inner] concavity of the sphere of the moon, and

b. light in weight relatively, this being air, which is hot and wet, and touching the [surrounding inner] concavity of [the sphere of] fire, and

c. heavy in weight absolutely, this being earth, which is cold and dry, the substrate of which is central in that L 266 its center corresponds to the center of the universe, and

²³³ L 265 gl: This is a movement [i.e., of position] about its own axis, like the movement of a handmill about itself and its axis. The moon has another movement upon its sphere, and this is a motion of place [al-aynīyah], not of position [al-waḍ'īyah]. The motion-change of the former kind, that is, of position, is appropriate in this instance.

²³⁴ MS gl: The confrontation [istiqbāl] constitutes a comparison [muqābalaḥ] of the moon and its course [al-sīrah] in order to verify the accuracy [li-ta'kīd taḥaqquq] of the comparison, in that one side would not be more than the other.

²³⁵ MS gl: I.e., the confrontation of moon and sun.

²³⁶ MS gl: However, this is contrary to fact.

The above gloss replies to a reading of the previous sentence as a positive statement. However, N.B.: as Isfahani's text here concludes, [lā taqtaḍī inkhisāfahu], and because he is presenting an unresolved theory, it seems fair to suggest that his intention might well have been to say, [a-lā taqtaḍī inkhisāfahu ?] in question form.

d. heavy in weight relatively, this being water, which is cold and wet. Rightfully it would encircle the earth, but, because in some regions of the earth mountains and valleys exist on account of the positions and conjunctions of the celestial spheres, the water has flowed naturally to the low lands while elevated places appeared. That [provision] is in accordance with the wisdom of God and his mercy, in order that there might be a place for the growth of plants and a place for the habitation of living animate beings.

The generation and corruption of the elements

All together these factors constitute [a situation of] both generation and corruption,²³⁷ since the waters of some springs solidify as stone, and stone is made into water by masters of [the earth's] secrets, and air coming into contact with a chilled vessel becomes drops [of condensed water], while boiling water and a fiery flame become air, and air becomes fire through a strongly forced current of air.

Isfahani says:

L 266, T 125, MS 132b

The simple bodied elements: fire, air, earth, water

The elements are four in number: a. fire, b. air, c. earth, and d. water. They are such because each of them is undergoing a gradual motion-change either 1. away from the center [of the universe] or 2. toward the center.

(1.) The first group, [that is, those moving gradually away from the center of the universe] MS 133a either a) aim for the [surrounding inner] concavity of the moon's sphere, or b) they do not, the former (a) being fire, the latter (b) being air.

(2.) The second group, that is, those moving gradually toward the center, either c) aim for the center, or d) they do not, the former (c) being earth, the second (d) being water.

Fire is light [in weight] absolutely, being hot and dry, and the [outer] convexity [of its sphere] is in contact with the [surrounding inner] concavity of the moon's sphere.

Regarding its being light in weight absolutely, that is because by nature it seeks to be above the [other] elements. The heat of fire is obvious and sensate. The fire we [usually] have is mingled with what-

²³⁷ Actively coming into generation and into corruption [kā'inah wa-fāsidah].

ever has been moderated by coldness, and in spite of that its heat is sensately felt. But unmixed fire is of the highest intensity.

Regarding the dryness [of fire], this is indicated by the fact that it displaces moisture from the matter of any body near to it. But this requires consideration, since it is admissible to argue that the displacement of moisture may be due to [fire's] production of both the lightness of weight and the tendency to ascend, not because [fire] is dry in itself. Moreover, an objection has been raised that [fire] is [actually] wet, because it easily assumes various shapes and easily loses them. But this requires consideration because what would be like that is the fire which we have, and so it would be admissible to argue that [fire] should be so because of the mingling of airy particles with it. So it is possible that fire as a simple bodied element should have some dryness in it when compared to air.

The Shaykh al-Ra'is [i.e., Ibn Sina]²³⁸ inferred the dryness of fire by [arguing from the fact of] lightning in [his book] *al-Isharat [wa-al-Tanbihat]* [pp. 262–3 ff.]. [He stated that] when the fire [of lightning] is quieted and its heat is gone there will be hard earthy bodies left from it that the thundering clouds cast down. Therefore, these hard bodies have been produced by the fire [of the lightning] after it has quieted, and the exit of its heat indicates that it is dry.

This [argument] would be sound only if the lightning bolt, I mean, the hard earthy bodies that the clouds cast down, should be generated from fire. But this requires consideration, for Shaykh [Ibn Sina] said in some of his statements that the lightning bolt is generated from the smokes and vapors that rise from the earth and are confined in the clouds. L 267

Fire is ethereal because it does not curtain off the celestial orbs that are behind it. MS 133b Moreover, as the fire we have becomes more intense, its coloration becomes less. Likewise²³⁹ the inner sources of the flames, as they are an intense fire, are ethereal and no shadows fall from them.

The natural location of fire is to be above the air, in that [the concave surface of its sphere] encompasses the air, while [the fire] in turn is encompassed by the [inner] concave surface of the moon's sphere.

²³⁸ The MS omits [al-Ra'is].

²³⁹ T and the MS: [ka-dhālika]; L: [li-dhālika].

Air is light [in weight] relatively, that is, it tends [to move] in an upward direction but does not reach the inner concave surface of the moon's sphere, and it is hot and wet. Regarding its heat, this is [only] in comparison to that of water; but in comparison to that of fire, it is not intense like the heat of fire. What indicates the heat of air, relative to that of water, is the fact that water is similar to [air] in that it becomes vapor when it is boiled and made fine, while if [air] should not have more heat than water then it would not be lighter and finer than it.

Air that is near our bodies is felt as coolness only because it is blended with a mixture of vapors derived from water. As for air's wetness, namely, its having a quality by which it is capable of both assuming a shape and losing it readily, this fact is obvious. Air is encompassed by the sphere of fire, while [air] encompasses [the spheres of] water and of earth.

Earth is heavy [in weight] T 126 absolutely; that is, it tends [to move downward] toward the center, in that its center corresponds to the center of the universe. Earth is cold and dry. Regarding its dryness, that is obvious. As for its coldness, if it should be in a void having its present nature, and should not be warmed by any outside means, then a perceptible coldness would be apparent from it. [Earth's] location is at the center, in that its own center corresponds to the center of the universe.

Water is heavy [in weight] relatively; that is, it tends to move toward the center but does not reach it. [Water] is cold and wet. This is apparent.²⁴⁰ Water encompasses three fourths of the earth. By right it would encompass it completely, except that there came to be highlands and lowlands in the various areas of the earth on account of the positions and conjunctions of the [celestial] spheres. Then the water flowed into the depressions, and the elevated places stood revealed, and so at last water and earth [together] came to be like a single globe. That [arrangement] is in accordance with the wisdom and mercy of God Most High, in order that there might be a place for the growth of plants and a place for the habitation of living animate beings.

²⁴⁰ MS gl: [I.e.,] its coldness is obvious. As for its being wet, that is because it accepts a shape and leaves it readily.

The generation and corruption of the elements

Now, the [individual] elements MS 134a are completely subject to [the process of] generation and corruption; each of them turning into another, in that [each] casts off one form and puts on another, this being what constitutes generation and corruption.

The transformation [of one element] into what is closely related [and] without any intermediate step is like the transformation of water to earth, for the waters of some wells do solidify into stone.

An example is the transformation of earth into water, for the masters of [the earth's] secrets, that is, alchemists who are seeking the elixir,²⁴¹ make stone into water, that being by making the stone into salts first, either by firing²⁴² or by pulverizing, and then dissolving them in water.

Another example is the transformation of air into water, for air that comes into contact with a [chilled] vessel [of food or liquid] becomes drops of water. Indeed, dew will form upon a bowl inverted L 268 over ice, and as often as you lift it up the same thing happens again and again.

And that does not happen by percolation,²⁴³ because water by its nature does not ascend, and because, if it should be by percolation, then it would preferably be from hot water, that is more apt to percolate and rise. Nor would that drop of water be in the air and then settle on the bowl, because the air surrounding the bowl cannot contain many particles of water, especially in the summer. This is because if the water particles in the summer should remain in the air, then they would of themselves rise very high because of the excess heat and would not remain near the vessel. Further, if the water particles should remain in the air,²⁴⁴ then the implication would be either that there would be a dwindling away of these particles when the repetitive formation of the dew after being brushed from the vessel time after time would finally stop, although the vessel would remain as it was; or that [the water particles] would decrease, so that the [dew's] formation each time would be less than the time

²⁴¹ I.e., "A substance held capable of changing base metals into gold."—*Webster's Ninth New Collegiate Dictionary*. Springfield, Mass., Merriam-Webster Inc., 1983.

²⁴² The scribe of L inadvertently points the first consonant of [ihrāq] to be [ikhrāq].

²⁴³ MS gl: Meaning to permeate [nufūdh].

²⁴⁴ The MS omits "in the air", although the scribe has coded for an insert here.

before; or that there would be a decrease in the time durations of [the dew's] occurrence, so that between each two occurrences a longer time duration would elapse than between the two occurrences before, because of [the particles'] greater distance from the vessel. But all these [options] would be contrary to actual fact.

An objection has been raised to the effect that if the vessel's coldness should require the breakdown [into condensation] of the air surrounding the vessel, then the implication would be that the air surrounding the water [i.e., in the vessel] would [itself] become water, because of the coldness of [the vessel's] water, and likewise the air surrounding MS 134b that [newly formed water], until the flow of water would be substantial.²⁴⁵ But observation contradicts all this: for the air does not become water; rather, the dew that forms on the vessel results from water particles.

The reply to this [objection] is that on account of the vessel's hardness it is difficult for it to become adapted to a different quality, and when [the vessel] is adapting to it then [the change] becomes firmly based and is preserved in a gradual way. On this account it is often found that the tinned [copper] vessels²⁴⁶ containing hot liquids²⁴⁷ are hotter than these liquids. Thus, the vessel mentioned, on account of its great coldness, would condense the air surrounding it. However, the air that moves around [the vessel], because of the rapidity with which water becomes adapted to a different quality, transforms [the water on the vessel's] surface from its great coldness quickly, so that the air is not condensed so long as there is water on the surface of the vessel. But when [the water] has withdrawn²⁴⁸ from [the surface] and air comes in contact with the surface of the vessel, [the air] again condenses.

A further example of [the transformation of elements into other elements] is the transformation of water into air, for vapors are released from water that is boiled to the extent that it will evaporate completely.

²⁴⁵ L and the MS: [šāliḥan]. The term in T is corrupted to [sa'īḥan].

²⁴⁶ Tin [al-raṣāṣ al-qal'ī] ["Kalah (Malacca) lead"], a rarer metal, was [and still is] used to coat copper utensils, especially for cooking food. Cf. the mention of copper and tin in the article "Ma'dīn" by E. Ashtor in *En-I-2*, v. 5, p. 964.

²⁴⁷ L, T, and the MS: [māyi'āt], a dialectal variant from [mā'i'āt].

²⁴⁸ L, T, and MS Garrett 989Ha: [intaḥa']; MS: [tanḥa'].

Another example is the transformation of fire into air when a flame becomes air. For if fire that separates from its flame should retain its own nature then it would set fire to whatever would confront it on one or another of its sides. Therefore, [the separated fire] is transformed into air.

Another example is the transformation of air into fire through a strongly forced current [of air]. For when a persistent strong current of air is made by the bellows, and the ways by which fresh air enters it are closed, then the air in the bellows becomes L 269 fire. Anyone who sees this [process] will witness to it.

Now, after such transformation [of elements] without an intermediate step has been clearly shown, then the possibility of a transformation by one or two intermediate steps will be understood. Therefore, these transformations are evidence that primal matter is a commonality.²⁴⁹

Baydawi said:

L 269, T 126

Composite bodies are made from the elements

Composite bodies are created from the blending together of these four [simple bodied elements] in various blends that [in turn] are adapted to differing [natural] characteristics, namely, minerals, plants, and living animate [nature blends].

A blend is the intermediate quality [of matter] that results from the interaction of the simple elements, in that their particles become miniaturized to the extent that the resisting strength of each of [the elements] breaks the resisting strength of each of the others' quality [of matter], so an intermediate quality [of matter] comes into being.

Isfahani says:

L 269, T 126, MS 134b

Composite bodies are made from the elements

Composite bodies are created from the blending together of these four [simple bodied elements]—earth, water, air and fire—in various blends that have been prepared [to accept] differing natural

²⁴⁹ MS gl: Since if that should not be so, then the generation and corruption would constitute a transformation of [ultimate] reality, which would be impossible.

characteristics,^{250,251} namely, minerals, plants, and living animate natures. And the proof that composite bodies are formed from the blending of these four [simple bodied elements] is [provided by] inductive inference.

Now, a blend is an entity that has been prepared [to accept] the occurrence [within it] of the [substantial] forms of composite [bodies], whether mineral, plant, MS 135a or animate [in nature], and that is demonstrated by the fact that T 127 composite bodies are of three kinds:

a. having a [substantial] form but no soul, and called a mineral [body];

b. having a [substantial] form and a soul, it is food bearing and able to grow, it is reproductive of its own kind, but it has neither sense perception nor the power of voluntary motion-change, and it is called a plant [body];

c. having a [substantial] form and a soul, it is food bearing and able to grow, it is reproductive of its own kind, and has both sense perception and the power of voluntary motion-change, and it is called a living animate nature [body].

All of these [substantial] forms are initial completions.²⁵² A completion is divided into

1. what will diversify [i.e., into subclasses], namely, a [substantial] form, such as humanity, that is the first thing that inheres in matter [i.e., it is the initial completion]; and

²⁵⁰ MS glosses: 1. [khilaq] being the plural of [khilqah].

2. I.e., 'substantial forms' [ṣuwar naw'īyah].

3. A 'natural characteristic' [khilqah], as the doctrine is, refers to the structure that is accidental to a body because of its color or shape, as was discussed previously in [the topic] "Qualities specific to quantities." It is also held to refer to the sources of all structures, namely, what are called the 'substantial form', and the meaning intended here is the 'substantial form'.

²⁵¹ The MS here inserts in the text: "as we shall mention."

²⁵² The completion [or, entelechy] [kamāl] is that [degree of completion] at which a 'kind' [naw'] is completed [yukammal bihī] [either] in its 'essence' or in its 'attributes'. The first [of these],—I refer to that at which a kind is completed in its 'essence',—namely, the 'initial completion' [al-kamāl al-awwal], [is such] because it takes precedence over the kind [li-taqaddumihi 'ala' al-naw']. The second [of these],—I refer to that [degree] at which a kind is completed in its attributes, this being whatever accidents adhere to the kind,—namely, the 'secondary completion' [al-kamāl al-thānī], [is such] because it yields precedence to the kind [li-ta'akhkhurihi 'an al-naw']. [From the *Ta'rifat* of al-Jurjani (Fluegel ed.) p. 196.]

2. what will not diversify, but is an accident, such as having the ability to laugh. This is the secondary completion, that is made accidental to a kind after the initial completion.

These [substantial] forms are completions that have differing effects. From the living animate nature form comes whatever comes from the plant form, and from the plant form whatever comes from the mineral [form]. But the reverse sequence is not true.

Each of these three is a genus, not a species, [and] none of them may be arranged above another.²⁵³ Similarly, each species comprises varieties, and each variety [comprises] individuals, but there is no confining restriction, so that no two species and no two varieties and no two individuals resemble one another.

This variation is not caused by their primal matter, nor is it caused by their corporeality, for these two factors are commonalities. Nor is it on account of the differentiating principle, for that is unique in its essence while having an equal relationship to all material substances. Therefore, [this variation] would be on account of factors that vary.

The things that vary²⁵⁴ in primal matter are the four substantial forms²⁵⁵ that belong to the elements, that are [in turn] the materials for [making] composite [bodies]. The variation²⁵⁶ is not on account of these [substantial] forms themselves, because the variation that is due to them would not be more than four [types].

[The variation], therefore, would be due to the circumstances [of the forms]

a. in the composition and

b. in whatever accidental quality they would have from the blends after the composition. L 270 For the composite [body] would vary according to the variant amounts of these elements, and [in reverse] the blends would vary according to the variation in the composite [body].

Since the possibility of subdivision of the elements is limitless, the possibility for composite bodies is [also] limitless, and thus the possibility of blends has become limitless. MS 135b These [abundant] differences taking place in the blends are the causes making

²⁵³ MS gl: [L.e.], in standing or importance.

²⁵⁴ The MS abridges to: "These in primal matter are . . ."

²⁵⁵ MS gl: [L.e.], earth, air, water and fire.

²⁵⁶ L 269 gl: [L.e.], among species, varieties, and individuals.

them adaptable to differing natural characteristics,²⁵⁷ which are the mineral, plant, and living animate natures, [including the range of] their genera, species, kinds, and individual examples.

A blend is the intermediate quality [of matter] that results from the interaction of the simple elements upon one another, in that their particles become miniaturized and so they intermingle, and [they all] undergo change in their mutually opposing qualities that issue from their potentialities. This [interaction] is such that each element acts in every way [it can] upon the material of the other to the extent that the resisting strength of each of [the elements] breaks the resisting strength of each of the others, and therefore [each] is changed in its qualities. From [these new qualities] a quality originates that has a mutual resemblance with the whole [mass] and is more or less an intermediate [quality].²⁵⁸

The [substantial] forms of the simple [bodies] and of the elements do not disintegrate when they blend and interact. It would not be possible for every one of them to act upon another in such a way that each would also be acted upon; because if the action of every one of them should be simultaneous with its being acted upon, then the relationship of one entity to another would be that of overcoming and being overcome simultaneously.

If the action [of one of them as an active agent] upon the other should precede [the former's] being acted upon by [the latter], then the [latter] that had been overcome [by the former], necessarily would be [in turn] the one that would overcome [the former].

But if [the former's action] should be after its being acted upon [by the [latter]], then [the former] necessarily would be the one that would overcome [the latter], after [the former] had been overcome. Therefore each one's action upon the other inevitably would be in some aspect different from the aspect in which it would be acted upon.

Moreover, it would not be admissible for [the action] to be in terms of matter as the active agent, because matter as such is a recipient, and a recipient as such is not an active agent.

Nor would it be admissible that the active agent should be the ['substantial] form' while the quality would be [the entity] subject to breaking, because the [substantial] form brings about breakage

²⁵⁷ Properly [khilaq]; MS: [khalaq].

²⁵⁸ MS gl: I.e., it is neither hot nor cold to an extreme, and neither wet nor dry.

only by the intermediation of the quality,²⁵⁹ and [such a case] would imply that what brings about the breakage would be [also] what is subject to breakage, and that what is subject to breakage would be [also] what brings about the breakage. However, no entity in a single situation may be both the winner and the loser, both the breaker and the broken, because the sum of the [substantial] form and the quality [together] would be the breaker, and also the sum [of the two together] would be the broken.

The truth is that the active agent is the quality, while the passive subject [of the action] is the matter. For that reason the quality intermediate between hot and cold results when these two are blended without two [substantial] forms having occurred within them, and there is no implicit impossibility.

[In his definition of the blend], [Baydawi's] term, having a mutual resemblance, means that this [particular] quality [of blend] has a mutual resemblance among all particles of the [blended] elements.²⁶⁰ And his term, intermediate, means that that quality having the mutual resemblance [with all particles of the blend] is intermediate among the qualities of the elements.

Baydawi said:

L 270, T 127

4. *Bodies as temporal phenomena*

a. Bodies are temporal phenomena both in themselves and in their attributes.²⁶¹

Theories of the philosophers on cosmogony

b. Aristotle said that the celestial spheres are eternal in themselves and their particular attributes,—except for their positions and

²⁵⁹ MS gl: According to this [statement] the active agent would be the 'substantial form' [al-ṣūrah al-naw'īyah] by the intermediation of [bi-tawassuṭ] the 'quality', while the passive subject acted upon would be 'matter'.

²⁶⁰ This term, "having a mutual resemblance" [al-mutashābihah], is not in the text of Baydawi's written presentation. Isfahani himself has introduced it, whether from his father's memory, or possibly his own memory, of Baydawi's lectures as being a useful supplement in the explanation.

²⁶¹ F.D. Razi in his *Muhassal*, pp. 119–120, [theory] #1, followed by [theories] #2 and #3.

Here in L the scribe has omitted 'and their attributes'.

motion-changes.²⁶² [Eternal likewise] are the [bodies of the] elements in their material substances, and in their corporeal forms by their species, and in their substantial forms by their genera.

c. Those [philosophers] who preceded [Aristotle] held that all [things] are eternal in their essences, but temporal in their forms and attributes. However, they had differences over these essences.

[Another] theory was raised that the [element of] origin would have been a material substance. Then the Creator Most High took it under the most grave observation, and it melted down and became water. Then from it earth resulted by becoming compressed, while fire and air resulted by becoming refined, with the [cloudy] sky resulting from the smoke of the fire.²⁶³

Other theories were that that first [element of] origin would have been earth, then the rest resulted from refining. Another theory was that [the first element] was air, and another was that it was fire, while the rest were formed by becoming compressed, and the sky was formed from the smoke.

Another theory was that [the first element] would have been small particles of every genus, separated and in motion; then whenever particles that were equivalent²⁶⁴ would meet together they would match and adhere together and become a body.

Another theory was that there would have been a soul T 128 and [then] primal matter to which [the soul] was strongly attracted and to which it became linked. Then this linkage would have become a cause for the temporal origination of the atoms of the universe.

Another theory was that [the first element of origin]²⁶⁵ would have been units and these [all] came to be holders of positions; [from them] points were generated, and then these were arranged together and became bodies.

Galen accepted all [of this early philosophy] as the basis [for his own thought].²⁶⁶

²⁶² MS Garrett 283B and MS Garrett 989Hb omit "and motion-changes."

²⁶³ T omits "of the fire."

²⁶⁴ T adds: 'in portion' [mutamāthilat al-qismah].

²⁶⁵ Cf. *An Introduction to Ancient Philosophy*/by A.H. Armstrong, p. 14: "... a very little known or knowable . . . group of Pythagoreans of the younger generation who taught a sort of 'mathematical atomism', a doctrine according to which all reality is ultimately constructed of indivisible mathematical units . . ."

²⁶⁶ Razi, op. cit., p. 122, briefly mentions the 4th type of theory, then speaks of Galen.

Isfahani says:

L 271, T 128, MS 136a

4. *Bodies as temporal phenomena*

Theories of the philosophers on cosmogony

The peoples of the world have differed [in their views] about the temporal nature of bodies.²⁶⁷ The possible views are assumed to be four in number, a body being either:

- a. temporal in [both] essence and attributes, or
- b. eternal in [both] essence and attributes, or
- c. eternal in essence and temporal in attributes, or
- d. temporal in essence and eternal in attributes.

No rational person has held this fourth possible view, while the other three possible views have all been held by some people.

(a.) The first [theory] has been held by Muslims, Christians, Jews, and Magians. Their theory is that bodies are temporal phenomena both in themselves and in their attributes.

(b.) The second [theory] is the doctrine of Aristotle, Theophrastus, Themistius and Proclus, and of the later [philosophers] Abu Nasr al-Farabi and Abu 'Ali Ibn Sina. Their theory is that the [celestial] spheres are eternal both in their essences and in [all] their particular attributes, such as size and shape and concomitant spherical factors, but not in the motion-changes and positions. Each of these [latter two] factors is temporally originated and is preceded by some other [factor], each [of the two series], however, having no beginning.²⁶⁸ Moreover, the elements are eternal in their material substances according to their individuation, their corporeal forms are eternal in their species, and their substantial forms are eternal in their genus. That is, before each form there was another form, with each [series] having no beginning to it.

²⁶⁷ Reading with L, MS Garrett 989Ha, and MS Garrett-Yahuda 4486: [ikhtalafa ahl al-'ālam fī ḥudūth al-ajsām]. Here for his first sentence Isfahani quotes verbatim the rubric used by F.D. Razi for this topic, and continues to follow Razi's text very closely. [See his *Muhassal*, Cairo 1323, pp. 119 ff.]

But scholars and scribes differed, some preferring [ikhtalafa ahl al-'ilm . . .]. So: T, and the MS; while MS Garrett-Yahuda 4486 in the margin shows ['ilm] as a manuscript variant.

²⁶⁸ [lā ila' awwal] reading with the MS and MS Garrett 989Ha. L and T add at the end: [lahā]. At the next occurrence of this sequence, [lahā] is in all four of these sources.

(c.) The third [theory] is the doctrine [both] of the philosophers who preceded Aristotle such as Thales, Anaxagoras, Pythagoras and Socrates, and of all the dualists, such as the Manichaeans, the Bardaysanites,²⁶⁹ the Marcionites, [and] the Mahayana Buddhists. These [philosophers] held that all bodies are eternal L 272 in their essences, while being temporal phenomena in their corporeal forms, in their substantial forms, and in their attributes. But then they differed in their views about the essences [of bodies], and they divided into two groups:

1. The first [of these two groups] asserted MS 136b that the material [mentioned regarding the elements] would be a body.²⁷⁰

Thales asserted that it would be water, because it would be the substrate of all the forms. Then from it earth would occur by becoming compressed and solid. Fire and air would occur from it by becoming refined, for if water is vaporized it becomes air, and fire is generated out of the finest of mists,²⁷¹ and the [cloudy] sky is generated by the smoky fire. It is said that Thales derived [his theory] from the Torah, because there is written in its first book that God Most High created a substance, and put it under the most grave observation. Then its particles melted down and became water, and then from it arose vapor like smoke, and from this He created the [cloudy] sky. Then foam appeared on the surface of the water, and from it He created the earth, then He anchored it firmly with the mountains.²⁷²

Shahrastani, the author of *al-Milal wa-al-Nihal*, related about Thales of Miletus that he had said that the First Principle produced the element in which²⁷³ were the forms of all things whether existing or nonexisting. Then from every form some existent thing was sent into the world in accordance with the archetype model in the first

²⁶⁹ Shahrastani's *Milal*, v. 2, p. 55, Cairo 1968, ed. A.A.M. al-Wakil: "Companions of Dayṣān" [= Bar-Dayṣān]. I.P. Culianu's article "Gnosticism" in the *Encyclopedia of Religion* [ed. M. Eliade], 5:574-5, mentions the Bardaysan heresy in the Isma'ili gnosis founded in the 9th cent. [A.D.], part of "an underground gnostic tradition within Christianity, Judaism and Islam from the Middle Ages to the present."

²⁷⁰ Razi, op. cit., p. 120, uses the term body whereas Baydawi's term at this point is substance [jawharah].

²⁷¹ Texts L, T and MS 136b:3 here say "purest water" [ṣafwat al-mā'] is the source of fire; but farther on [at MS 136b:16] in the same context they all say "finest of mists" [ṣafwat al-hawā'] is the source of fire.

²⁷² Shahrastani, op. cit., v. 2, p. 122.

²⁷³ L & MS: in which [fih]; T: from which [minhu].

element. Thus, the substrate of [all] forms and the source of all existent things is the essence of this element, and nothing exists either in the world of the intellect or the world of sense whose form and likeness are not within the essence of this element.²⁷⁴

Shahrastani²⁷⁵ said that the popular conception was that the forms of nonexistent things are in the essence of the First Principle; but no, rather, they are in what was first produced, while [God] Most High in His [absolute] singularity is far above being characterized in terms that describe what He has produced. Then [Shahrastani] said that strangely enough it is reported of [Thales that his theory was] that the first thing produced was water, and from it was produced all the elements, [including everything] from the sky and the earth and everything between them. He stated that from [water's becoming compressed and] solid the earth was generated, and from [water's becoming] dissolved the air was generated. From the thinnest air fire was generated, and from the smoke and vapors the sky was generated. From the burning sparks occurring from the vapors²⁷⁶ the celestial orbs were generated, and they circled around the center [of the universe]—as a causal effect revolves about its cause—by the attraction for it that resulted in them. [Shahrastani] then said that Thales of Miletus took his doctrine only from *al-Mishkāt al-Nabawīyah*,²⁷⁷ that is, MS 137a what was reported from the Torah.

Other [ancient scholars] theorized that the [element of] origin was 'earth', and from the earth the other [elements] resulted by a process of refining. Anaximenes asserted that [the element of origin] was 'air'; from its thinness fire was generated, while from its [compressed] coarseness earth and water [were generated]. Heraclitus asserted that [the element of origin] was fire, and [all] things were generated from it by becoming [compressed and] coarse, while the sky [was generated] from its smoke. Others held that [the element

²⁷⁴ From *An Introduction to Ancient Philosophy* by A.H. Armstrong [p. 3]: "The Milesians . . . postulate as the first reality a single living stuff, indefinite in extent and character, from which the world and all things in it develop spontaneously. Thales called this moisture or more accurately the moist [to hugron], moisture being the principle of life according to simple observation and primitive common sense."

²⁷⁵ N.B.: The 1968 Cairo ed. of Shahrastani's *Milāl*, ed. 'Abd al-'Aziz Muhammad al-Wakil, v. 2, p. 120, has the reading of "forms of the intelligibles", where Isfahani (MS 136b, L 272 & T 128) has "forms of nonexistent things."

²⁷⁶ L: [athar]; other sources: [abkhirah]

²⁷⁷ I.e., "Lamp-niche of the Prophet." MS 136b:19: [al-mishkāt al-Mūsawīyah].

of origin] was vapor, then air and fire were generated from it by [a process of] refining, while water²⁷⁸ and earth were generated by [a process of compressing and] solidifying.

[Shahrastani then reported] about Anaxagoras [that he held that the element of origin] was an endless flux.²⁷⁹ [The flux] consists of bodies without limit in number, and there are in it small particles from every genus. For instance, there are in it particles that are of the nature L 273 of bread and particles of the nature of meat, and those particles are separate and in motion. Whenever these particles meet, many that are similar join together²⁸⁰ and become a body.

A certain [philosopher]²⁸¹ based on this doctrine [i.e., of the 'flux'] his denial of [the doctrine of] 'blend' and 'transmutation', [instead of which] he held to the doctrine of 'latency and appearance'.²⁸² Some of these [philosophers] asserted that the 'flux' had been quiescent in past eternity, then God Most High began its motion-change, so this world was generated from it.

Democritus asserted that the origin of the universe was [from] many particles [all] spherical in shape, receptive to subdivision that was by estimation [in nature],—not a physical separation,—and moving T 129 of themselves in a constant motion-change. Then it happened that these particles collided in a particular way, and from their collision in that [particular] way this universe resulted having this pattern. Thus, the heavens and the [terrestrial] elements had their temporal origin; and then from the motion-changes of the heavens the [various] blends of these elements had their temporal origin, and from these [latter are made] the composite bodies.

The dualists asserted that the origin of the universe was light and darkness.

²⁷⁸ L omits water.

²⁷⁹ From the *Dictionary of Philosophy*, ed. by D.G. Runes, see R.B. Winn's brief note: "Flux: The characteristic of time, by virtue of which all things change inevitably. In Heraclitus' view, who brought the problem into prominence, 'all things flow; nothing abides.'"

²⁸⁰ MS gl: i.e., they blend [ikhtalaṭat].

²⁸¹ [hādhā al-qā'il] Rāzī does not have the name of Ibrāhīm ibn Sayyār al-Nazzām at hand, and Isfahānī does not supply it. Shahrastānī touches on these matters when speaking of the views of al-Nazzām in his *al-Milāl wa-al-Nihāl*, [English tr.: *Muslim Sects and Divisions*, translated by A.K. Rāzī and J.G. Flynn, pp. 48 ff.] Nazzām is associated with the doctrine of 'latency [and appearance]' [cf. J. van Ess, art. "kumūn" and art. "Nazzām" in the En-I-2].

²⁸² Rāzī, op. cit., p. 120. 'Latency and appearance' [al-kumūn wa-al-burūz] Isfahānī uses the term [burūz], while Rāzī has [zuhūr].

2. The second group [of philosophers] are those who say that the origin of the universe would not be a body,²⁸³ and they are in two classes:

a) The first class [i.e., of this second group of philosophers] are the [Scholars of Harran]²⁸⁴ who affirm the five entities that are eternal: the Creator [Most High], the soul, MS 137b primal matter, the transcendent now,²⁸⁵ and the void.²⁸⁶ The doctrine [of the Harranian scholars, i.e., the second general theory of the origin of the universe], is as follows:

1) The Creator [Most High] is perfect in knowledge and wisdom: neither inattention nor indifference may be attributed to Him, and from Him emanates intelligence as light emanates from the sun's disk,²⁸⁷ and He the Most High is omniscient of all things.

2) As for the soul, from it emanates life as light emanates from the sun; but [the soul] is unaware and uncomprehending of all things, inasmuch as it does not administer them.

3) The Creator Most High knew that the soul would incline to a linkage with primal matter and to a strong attraction for it, and that it would seek for corporeal satisfaction,²⁸⁸ and would abhor a separation from bodies, and that it would forget its own self. And whereas in the governing²⁸⁹ of the Creator Most High there

²⁸³ Razi, op. cit., p. 121.

²⁸⁴ L & P: [Hirbānīyah]; MS has [Hirbānīyah]; Razi, op. cit., p. 121, has [j-rmānīyah]. Shahrastānī's *Milāl* mentions the [Hirbānīyah], a sect of the Sabaeans. M.M. Marmura, in the article "Falsafah", *Encyclopedia of Religion*, M. Eliade, ed., 5:268, says the Sabaeans scholars of Harran were active as translators, and were known as star worshippers. The Harranian Sabaeans were disliked and sometimes persecuted because of their views, but they were respected as scholars, and included among their number Theodore Abu Qurra [Melkite Bishop of Harran] (c. 740-820).

²⁸⁵ Quoting from Jurjānī's *Ta'rifat*—"The 'transcendent now' [al-dahr] is the continuous moment [al-ān al-dā'im] which is the extension of the divine presence [al-ḥaḍrah al-ilāhiyah] and is the core of time duration [bātin al-zamān]; by it are united 'eternity' [al-azal] and 'everlastingness' [al-abad]," (i.e., past and future eternity).

From Goichon's translation of Ibn Sina's *K. al-Hudud*:—"Supratemporal duration [al-dahr] may be made an analogy of the Creator; it is the intelligible idea [al-ma'na' al-ma'qūl] in which permanent stability is conjoined to the soul through all time duration [zamān]."

²⁸⁶ MS gl: In the sense of a created dimension [al-bu'd al-maftūr].

²⁸⁷ MS gl: I.e., from a [celestial] body [jirm].

²⁸⁸ From Jurjānī's *Ta'rifat*—"Satisfaction [al-ladhdhah] is to apprehend what is appropriate in the context wherein it is appropriate."

²⁸⁹ L: [saws]—with Jurjānī's gloss: "His statement, 'And whereas in the government of the Creator' there is creation, power, and will, it is not strange that the soul should have extravagances [falātāt], that is, a superabundance."

is perfect wisdom, He turned to primal matter after the soul was linked to it and made it into a variety of composite [bodies] such as the heavens and the [terrestrial] elements. He compounded the bodies of [all] living animate beings in a most perfect way, and whatever imperfection has remained in them is there because it cannot be removed. Then He poured out upon the soul both intelligence and perception.

That [divine action] became a reason for [the soul] to remember its [own distinctive] world,²⁹⁰ and a reason for it to understand that as long as it was within the world of matter it would not be separated from sufferings. When the soul has recognized that fact, and [when it] has understood that in its [own distinctive] world there are satisfactions²⁹¹ that are free from sufferings, then it would be strongly attracted to that world [of its own], and would ascend [to it] after having been separated from it, and would remain there forever in the utmost bliss and happiness.

b) The second class [i.e., of the second group of philosophers, who hold that the origin of the universe would not be a body] are the disciples of Pythagoras.²⁹² Their theory is that the first principles [of the origin of the universe] are the quantities that are generated from [single] units.²⁹³ They hold that since the support for composite bodies is [provided] by simple bodies, entities each of which is a unit in itself, and as those entities either L 274 have quiddities in addition to the fact that they are units, or they do not have [such], then

1) if it should be the first alternative they would be composite bodies, because there would be that [particular] quiddity and that [particular] unit, but our discussion is not about composite bodies, but rather about their sources, while

2) if it should be the second alternative, then they would be abstract units. The units inevitably would be independent in themselves; otherwise, they would have need for another factor, and that other factor [logically] would be antecedent to [the unit]. However, we are speaking of sources in an absolute sense, and this would be

²⁹⁰ MS gl: This being the portion of God Most High.

²⁹¹ The MS reads [al-dhāt] but the context is clearly [al-ladhdhāt].

²⁹² Razi, op. cit., p. 122.

²⁹³ [al-a'dād al-mutawalladah min al-wahdāt]. See the note in the corresponding section in Baydawi's text.

contrary to the assumption. So then the units would be self-subsistent factors.

Now, if position should be made accidental to a unit, then [the unit] would become a [mathematical] point. And if any two points should meet together, then a line would result. And if two lines should meet, then a surface would result. And if two surfaces should meet, then a body would result. So it is apparent that the source of bodies would be the units.

Galen accepted all [of this early philosophy] as the basis [for his own].²⁹⁴

Baydawi said:

L 274, T 129

Arguments for the temporal nature of bodies

[The first reason for the temporal nature of bodies is that]

a. Bodies would have been quiescent if they had been present in past eternity

1. Any bodies present in past eternity would have been quiescent, since any motion-change [by a body in past eternity] logically would require

a) antecedence [of the motion] by another factor, [and that other factor's antecedence in turn]

b) would negate [the body's] past eternity.

2. Whatever would have been quiescent in past eternity would never move.

[That is] because

a) if [a body's] quiescence should be due to its own essence, then the [body's] separation from [its own essence] would be impossible; and

b) if [the quiescence in past eternity] should be due to some other factor, then inevitably that other factor would be a 'necessary cause'.

If the case should be otherwise [than alternative (a.)], [then that other factor's] action would not be eternal and due to [the body's] own essence, nor [would the other factor's action] terminate [by logical progression] in [the body's own essence], [the case altogether] avoiding both infinite series and circular arguments.

²⁹⁴ Razi, op. cit., p. 122.

However, in the case [of alternative (b.)] the implication is that [the body's quiescence] would continue and never cease. Therefore, if bodies had been quiescent in past eternity, then they would never move. But that conclusion is false, so the premise is likewise.

a. Objections and replies.

1. An objection has been raised that if [a body's real] existence should be impossible in past eternity, then [its existence anywhere] would be impossible absolutely, because of the impossibility of transforming into a possible reality something that is impossible because of its own essence. In reply, our [Baydawi's] position is that what would be impossible in past eternity is not [the same as being] impossible because of its own essence; just as with any daily occurrence [i.e., it might have been impossible in past eternity but it would not be impossible in itself].

2. Another objection has been raised that what would be a strictly delimited 'three-dimensional extension' would have no 'place',²⁹⁶ and thus, [an extension] would be neither in motion-change nor would it be quiescent. In reply, our position is that even if that [objection] should be granted, still there is no doubt that it would have a 'position' and would be in contact with what is in its interior. So, if it should continue in the position and in the contact specifically ascribed to it, then it would be quiescent; otherwise, it would be in motion-change.

3. Another objection has been raised that past eternity would prevent any individualized motion-change, [as in past eternity] there would be no motion-changes that have no beginning. In reply, our position is that rather, the motion-change in itself would be due to something that had preceded.

4. Another objection was raised asking why it would not be admissible that quiescence be conditional for a temporal entity's non-existence [in past eternity]; thus, [the condition] would cease upon that entity's temporal origination. In reply, our position [in that case] is that [the entity's] temporal origination would negate the existence of its quiescence, and thus [the entity's existence] would depend upon the nonexistence [of its quiescence], so a circular argument would be implicit.

²⁹⁵ This matter is touched upon in "Summary of Philoponus' corollaries on place and void" [by David Furley], in *Philoponus and the Rejection of Aristotelian Science*, R. Sorabji, ed., pp. 130 f., with reference to Aristotle's *Physics*, 211b: 19.

5. Another objection was raised that the [divine] power of autonomous action in causing the existence of a specific entity would be an eternal [power], but [that eternal power] would cease when [the specific entity] came into existence, so what you have stated would be contradicted. In reply, our position is that the factor that would cease would be the linkage [i.e., between the power and the entity], and that [linkage] is not an existential factor.

Isfahani says:

L 274, T 129, MS 138a

Arguments for the temporal nature of bodies

After [Baydawi] had finished stating the doctrines [of the Greek philosophers], he proceeded to establish the argument [for the doctrine] that [all] bodies are temporal phenomena both in themselves and their attributes. He set forth three reasons.

a. Bodies would have been quiescent if they had been present in past eternity

1. The first reason [that bodies are temporal phenomena] is that which the Imam [Fakhr al-Din Razi] published in his writings.²⁹⁶ [Razi's] position is that bodies are temporal phenomena because, if they should have existed in past eternity, then they would have been quiescent.

But this conclusion is false, so the premise likewise is false.²⁹⁷
L 275 An explanation of the logical necessity used here is that, if [bodies] should not have been quiescent in past eternity then necessarily they would have been in motion-change in past eternity, due to the fact that a body is restricted [either] to being in motion-change or to being quiescent. That is so because if [a body] should continue in one place more than one moment then it would be quiescent; but if it should not continue thus, then it would be in motion-change. Therefore, if bodies had not been quiescent in past eternity, then they would have been in motion-change in past eternity.

a) But it would be impossible for [bodies] to have been
T 130 in motion-change in eternity, since any motion-change logically requires the antecedence by another agent [at the site of the

²⁹⁶ The argument is taken from Razi's *Muhassal*, pp. 123 ff., Cairo, reprint of 1323 ed. Isfahani freely borrows from it.

²⁹⁷ The MS omits the reference to the premise.

motion-change], and [that antecedence in turn] negates [the fact of] eternity. [This is] because the quiddity of motion-change is the occurrence of one entity after another entity has vanished. Now, the occurrence of one entity after another has vanished logically requires the antecedence of that earlier entity. So the quiddity of motion-change logically requires an antecedence by another entity.²⁹⁸

b) However, past eternity is a quiddity that logically requires that there be no antecedence [in it] by another entity. Thus, the 'antecedence by another entity' that is the 'concomitant' of motion-change, and the 'nonantecedence by another entity' that is the 'concomitant' of eternity, [taken together] constitute an incompatibility. And the 'incompatibility of the two concomitants' is a premise that necessarily results in the 'incompatibility of the two substrates of the concomitants'.²⁹⁹

Thus, 'motion-change' and 'past eternity' [taken together] constitute an incompatibility; so it would be impossible for bodies to be in motion in past eternity, because it would be impossible to bring together the two incompatibles. Therefore, if it should be impossible for MS 138b bodies to be in motion-change in past eternity, then it is determined that they would be quiescent in past eternity, and necessarily so because of the restriction [of the case either to quiescence or to motion-change].

2. Then, to explain the falsity of this conclusion,³⁰⁰ it is that if bodies should have been quiescent in past eternity, then they would never move. But this conclusion is obviously false,³⁰¹ for we do observe motion-change both among the [simple] celestial bodies and among the [simple bodied terrestrial] elements, there being no other than these two kinds of bodies in the dispute. Now, those who would like to provide a more general proof demonstration must prove a resemblance among the bodies.

Regarding the logical necessity used in this argument, if the quiescent body in past eternity should have this quiescence due to its own essence, then it would be impossible to separate [the body from its own self], and [the body] never would be in motion-change. But if [the body's] quiescence should not be due to its own essence, then

²⁹⁸ The MS and MS Garrett 989Ha add here: which would negate eternity.

²⁹⁹ [munāfāt al-lāzimayn malzūm li-munāfāt al-malzūmayn.]

³⁰⁰ MS gl: I.e., that bodies would be quiescent in eternity.

³⁰¹ The MS: [buṭlān]; L, T, and MS Garrett 989Ha: [zāhir al-fasād].

it would be due to another factor, and that other factor as the cause of its quiescence inevitably would be a 'necessary cause'.

3. [Baydawi's] statement [here is], "If the case should be otherwise", that is, if that other factor should not be a 'necessary cause', then it would be an 'agent of free choice' by necessity. [But the other factor] would not be an 'agent of free choice' by admissibility because

a) if it should be an agent of free choice, then its action would not be eternal since the action of an agent of free choice would be a temporal phenomenon, [and]

b) it is impossible to bring into existence something that already exists, and

c) a temporal phenomenon would not be eternal. So, it is established that if the quiescence of bodies in past eternity should not be due to their own essence, then it would be due to a 'necessary cause'.

4. Moreover, the 'necessary cause' inevitably would be either some 'necessity' or [a factor] that ultimately terminates at a 'necessity'; because, if the 'necessary cause' should not be a 'necessity' or [a factor] that ultimately terminates at a 'necessity', then the implication would be that the argument was either an infinite series or was circular, both of these being impossible. Thus, it would be determined that [the 'necessary cause'] would be either some 'necessity' or [a factor] ultimately terminating at a 'necessity'. And in that case, the continuity of the quiescence would be implied by the continuity of its 'necessary cause', namely, either the 'necessity' or [a factor] ultimately terminating at a 'necessity',³⁰² so the quiescence would never cease.

5. Therefore, if bodies had been quiescent in past eternity, then they never would have any motion-change. But this [inferred] conclusion would be false,³⁰³ so the premise would be likewise. And when

a) it has been established that it would not be possible for a body in eternity to be [either] in motion-change or in quiescence, then

³⁰² N.B.: the MS frequently uses a pronoun antecedent instead of repeating the noun, while L and T use the noun written out.

³⁰³ Here in the MS both the 'conclusion' [al-lāzim] and the preceding apodosis clause ['then they would never have any motion-change'] are coded with a small oriental '3' clearly indicating that they are equivalents. The 'premise' [al-malzūm], namely, the 'if' protasis clause that precedes, [while not coded, clearly] 'is likewise'.

b) it has [also] been established that it would not be possible for a body [itself] to have being L 276 in past eternity.

a. Objections and replies.

1. An objection has been raised that if a body's existence in eternity should be impossible, then its existence [anywhere] would be impossible in an absolute sense. This is because it is inconceivable for something that is impossible due to its own essence to be transformed into a reality possible [of existence]. And this [in turn] is because it is inconceivable for something that has being due to its own essence to cease having being. And if the case should be otherwise, then it would be admissible for something that is impossible due to its own essence to become a necessity, and for something that has being due to its own essence to become either a necessity or an impossibility. But making that case admissible would result in blocking the door to establishing the Divine Maker as a factual certainty. However, the existence of a body is not impossible MS 139a in an absolute sense, so the existence of a body in past eternity would not be impossible.³⁰⁴ In reply to this objection, our [Isfahani's] position is that something that is impossible in past eternity is not [the same as] something being impossible due to its own essence. But rather, what would be impossible in past eternity would be something that was made impossible by a factor other than its own essence. This would be like some event occurring daily; for that would be impossible in past eternity, but it would not be impossible due to its own essence. So, the impossibility for the existence of a body in past eternity does not imply that it would be impossible absolutely.

2. An objection could be raised not granting [the argument] that if a body should not be in motion in past eternity then it would be quiescent in past eternity, [but claiming rather] that a three-dimensional body delimited on all sides would not have a 'place', so it would not be in motion-change nor would it be quiescent. And the explanation of that [statement] would be that motion-change is a transition from 'place' to 'place' while quiescence is a continuance in one 'place'. Therefore, motion-change and quiescence are each a corollary to the attainment of 'place', and thus it would be inconceivable to describe a three-dimensional extension delimited on all

³⁰⁴ MS gl: So its transformation would not be implied.

sides as being in motion-change or being quiescent. [In reply to this objection] our [Isfahani's] position is that we do not grant the existence of a three-dimensional extension that is delimited on all sides. And even if that should be granted, still we do not grant that it would not have a 'place'. For a 'place' is a described dimension, as previously stated, and a delimited extension would have a 'place' in this sense. Now, if it should be granted that a delimited extension would not have a place, nevertheless there would be no doubt that it would have a 'position', and that it would be in contact with what is inside it. Thus, inevitably the case would be either that the 'position' and 'contact' that are specific for it would continue, or that these two [factors] would not continue. Now, if the position and contact specific to it should continue, then [the delimited extension] would be 'quiescent'. Otherwise, that is, if the position and contact specific to it should not continue, then [the delimited extension] would be 'in motion-change'. For by being quiescent we mean that the position and contact specific to it would continue, and by motion-change [we mean] that the position and contact specific to it would not continue. On this basis, [the question] whether the delimited entity would be quiescent or in motion-change would not depend upon its attaining a 'place'.

3. An objection has been raised not granting the impossibility for a body in past eternity to be in motion-change, [although] your statement [i.e., Isfahani in representing Baydawi's doctrine] that any motion-change [by a body in past eternity] logically would require the antecedence [of the motion-change] by another factor, which amounts to the negation of [the body's] eternity [by that other factor]. In reply, our [Isfahani's] position is that past eternity would exclude a particular motion-change, but it would not exclude motion-changes that have no beginning.

Our author [Baydawi] stated that the quiddity of motion-change in itself is a negation of past eternity. [This is] because the quiddity of motion-change according to its particular kind [i.e., whether 'motion' or 'change'] is a composite of both an entity that has ceased [to exist] and an entity that has come to be existent. Therefore, the quiddity [of motion-change] is linked³⁰³ to the antecedence MS 139b of

³⁰³ So in L, T and the MS. The MS lists [muta'qqalah] as a manuscript variant, but this may be presumed to be a scribal error.

another factor, but the quiddity of past eternity is a negation of this meaning; therefore, to bring the two [quiddities] together [in a composite] would be impossible. An objector could say that the quiddity of past eternity should be clarified so that it would be plain that [the quiddity of past eternity] would negate motion-change.

Some of the Mutakallimun have interpreted 'past eternity' as the negation of any precedence, while others [of them] have interpreted [past eternity] as a continuation within [divinely] decreed timespans having no limit in the direction of the past. Without doubt every single [example] L 277 of motion-change would not be eternal whatever the interpretation used to explain past eternity. Regarding the particular kind of motion-change, [whether of 'motion' or of 'change'], that would not be a negation of past eternity.

[Baydawi's] position is that the quiddity T 131 of motion-change, according to its particular kind, is the composite of both an entity that has ceased [to exist] and an entity that has come to be existent. Our [Isfahani's] position is that we would not grant that the quiddity of motion-change would be a composite of an entity that has ceased [to exist] and an entity that has come to be existent. For indeed, the particular kind of motion-change [whether of 'motion' or 'change'] continues on, together with the entity that has ceased [to exist] and the entity that has come to be existent. But if the motion-change, according to its particular kind, should be compounded of an entity that has ceased [to exist] and an entity that has come to be existent, then this motion-change would not become realized,³⁰⁶ [when taken] together with the entity that has ceased [to exist] and the entity that has come to be existent.

Thus, the quiddity [of the motion-change] can be described as having continuation, but its individual components cannot. Therefore, a composite [made from both] the entity that has ceased [to exist] and the entity that has come to be existent would be traceable to its individual components, not to the particular kinds [of the composite]; so then the particular kind [of the composite] would not negate eternity [as being incompatible].

³⁰⁶ MS gl: [That is] because a composite made from a nonexistent entity, namely, the entity that has ceased [to exist], and from an existent entity, namely, the entity [newly] having existence, then [the composite] would be [itself] a nonexistent entity. [Note presumably by the scribe of this MS [li-kātibihū]].

4. An objection has been raised not granting that if a body had been quiescent in past eternity then it would not have any motion-change at all. In reply, [Baydawi's] statement is that if [the body's] quiescence should be due to its own essence, then it would be impossible to separate [the body] from [that essence]. But if [the quiescence] should be due to some other factor, then inevitably that other factor would be a necessary cause that was either a necessity [itself for the quiescence]³⁰⁷ or [the other factor] would lead back by progressive logic and terminate at a necessity; so the implication would be that the quiescence would continue as long as [the necessity] continued.

5. An objection has been raised asking³⁰⁸ why would it not be admissible that the quiescence be conditional upon the absence of some temporal phenomenon³⁰⁹ so that the quiescence would pass away with the occurrence of the temporal phenomenon.³¹⁰ In reply, our position is that the existence of the temporal phenomenon would negate the existence of the quiescence, because the contrary³¹¹ of the condition³¹² would negate the existence of the conditional factor.³¹³ Thus, the existence of the temporal phenomenon [i.e., the motion-change] would depend upon the nonexistence of the quiescence, and the nonexistence of the quiescence would depend upon the existence of the temporal phenomenon, so the argument implicitly is circular.

6. An objection has been raised not granting [the fact] that whatever is eternal³¹⁴ does not become nonexistent. The [divine] power of autonomous action to bring a particular entity into existence is an eternal [power], but it ceases when that particular entity comes into existence. God Most High was omnipotently able to bring the universe into existence; MS 140a but after it had come into existence then that expression of divine omnipotence did not continue, because the [continued] bringing into existence of what [already]

³⁰⁷ L: [mūjiban wājiban]; T and the MS: [wājiban].

³⁰⁸ So in L and T. The scribe of the MS inadvertently wrote [qulnā] instead of [qīla].

³⁰⁹ MS gl: i.e., the absence of any motion-change.

³¹⁰ MS gl: i.e., by the existence of a motion-change.

³¹¹ MS gl: namely, the existence of the temporal phenomenon, that is, the motion-change.

³¹² Namely, the absence of motion-change.

³¹³ Namely, the existence of the quiescence.

³¹⁴ Reading with T and the MS: [al-azālī]; L: [al-azal].

exists would be impossible. So that eternal linkage [of power and act] became nonexistent. And thus, there is a contradicting of the reasons that have been set forth to prove that if quiescence should be eternal then it would not become nonexistent. In reply, our position is that what is existent in eternity would be the autonomous power [of God], and that would continue to abide both in the eternal past and in the eternal future. That which would cease [to exist] would be the linkage of the divine power [to an individual action], and that linkage of the divine power [to an action] is not [itself] an existential factor.³¹⁵

Baydawi said:

L 277, T 131

b. Bodies are possible realities and are caused

The second [reason that bodies are temporal phenomena is that] bodies are possible realities, because they are composites and they are multiple, so each [body] would have a secondary cause, and that cause would not be a necessary cause.³¹⁶ If it should be otherwise, then everything issuing from [the secondary cause], with or without an intermediate factor, would continue as long as [the cause] itself continued, and this would be impossible. Therefore, [the secondary

³¹⁵ MS gl: But rather, that would be a factor in one's mental consideration [i'tibārīyan]; the discussion is not about it, but rather, about a factor having to do with existence and eternity.

³¹⁶ That bodies are temporal phenomena is equal to saying that bodies are possible realities. Much philosophical argument consists in demonstrating similar equivalencies.

Abu Hamid Muhammad al-Ghazali (1058–1111), was active a century before F.D. Razi and two centuries before Baydawi. He was “the greatest figure in the history of the Islamic reaction to NeoPlatonism, . . . and, despite Ibn Rushd's attempted refutation of Ghazali's objections, he dealt a blow to Islamic philosophy from which it would never recover.” [quoted by W.L. Craig from Majid Fakhry's *History of Islamic Philosophy*, (2nd ed., p. 217; New York, Columbia University Press, 1983). William L. Craig *The Kalam Cosmological Argument*, London: Macmillan Press; New York: Barnes and Noble, 1979, p. 42.] Ghazali's book in this case is his *Tahafut al-Falasifah* [*The Incoherence of the Philosophers*], in which he refuted the philosophers' argument for the eternity of the universe. Craig [op. cit., p. 43] says that Ghazali used a quarter of his book to argue that “the universe had a beginning in time . . . Ghazali pursued the proof that the universe had a beginning in time, for to his mind the thesis of an eternal universe was quite simply equivalent to atheism.” Ibn Rushd's answers, together with al-Ghazali's arguments, are available in English [*Averroes' Tahafut al-Tahafut (The Incoherence of The Incoherence)* translated . . . by Simon Van Den Bergh. Cambridge: Reprinted at the University Press, 1987].

cause] would be an agent of free choice, and anything having an agent of free choice as cause would be a temporal phenomenon.

Let no one ask why it would not be admissible for the 'necessary cause' to bring about the existence of a body in a gradual motion-change that seemed perpetual in nature, with its motion-change being the precondition for [all] these temporal phenomena and changes that take place. [Such a theory would not be admissible], because, if the existence of these temporal phenomena should be dependent upon the existence of a motion-change and that [motion-change should be dependent] upon another [motion-change], then the implication would be that there would be a coming together of motion-changes without end, [all of them already] arranged both in position and nature, which would be an impossibility.

And if [the existence of these temporal phenomena] should be dependent upon the nonexistence [of the motion-change] L 278 after its existence, then, in spite of the motion-change's nonexistence, the 'necessary cause' would be a completely adequate and continuing cause for the existence of that temporal phenomenon, and so the [necessary cause's] continuance would imply [the temporal phenomenon's] continuance.

Isfahani says:

L 278, T 131, MS 140a

b. Bodies are possible realities and are caused

The second reason, indicating that bodies are temporal phenomena both in themselves and their attributes, is that [bodies] are possible realities, from two aspects.

1. The first aspect is that bodies are composites, and every composite being is a possible reality. Regarding the minor premise here [namely, that bodies are composites, it is true] because [bodies] are compounded either from 'primal matter' and 'form', or from 'single atoms'. And regarding the major premise [namely, that every composite is a possible reality, it is true] because every composite has need for its own parts, [parts] that are [nonetheless] something other than itself, and where everything has need for the 'something other' there is a possible reality.

2. The second of the two [aspects] is that bodies are multiple,—because for every body that exists there is another body [either] of its species like [terrestrial] elemental bodies, or of its genus like celestial bodies,—and everything [that exists as a] multiple would be

a possible reality. [This is] because for a body to multiply³¹⁷ there would necessarily be differences [in the individual examples], and their differences are not due to themselves,³¹⁸ but rather their differences are due to causes other than themselves, and thus they would be possible realities.

So, it is established that bodies would be possible realities, and every possible reality would have a secondary cause, so [every body] would have a secondary cause. That secondary cause would not be a necessary cause, because if the secondary cause of bodies should be a necessary cause, then the implication would be that everything issuing from [such a necessary cause], with or without an intermediate factor, would continue by reason of the continuance of [this necessary cause's] essence, which would be impossible.

Regarding the fact that, if [the secondary cause] should be a necessary cause, then the implication would be that everything issuing from [that necessary cause] would continue, whether with or without an intermediate factor, and since that necessary cause would be either a temporal phenomenon or an eternal entity, then,

a) if [that necessary cause] should be a temporal phenomenon then bodies would be temporal phenomena, which is the desired logical conclusion; but

b) if [that necessary cause] should be an eternal entity, then from its continuance there would be implied

1) the continuance of its effect that would not have an intermediate factor, and from the continuance of that effect having no intermediate factor would come [in turn]

2) the continuance of its effect that would have an intermediate factor, and so on,³¹⁹ due to the necessary continuance of an effect by reason of the continuance of its cause. But regarding the fact that [the argument] would be impossible,³²⁰ [that is] because

³¹⁷ The MS alone has body in the plural; while L, T, MS Garrett 989Ha, and MS Garrett-Yahuda 4486 have the singular.

³¹⁸ MS gl: I.e., in their real nature shared as a commonality among them, namely, the body in an absolute sense [mutlaq al-jism], because it would be impossible for what is logically single to become diversified.

³¹⁹ MS gl: So, the implication would be that all temporal phenomena would continue, which would be impossible.

³²⁰ MS gl: This is about [Baydawi's] statement that [continuation of the effect] would be by reason of the continuance [of the cause] itself, which would be impossible.

many MS 140b existing things are [each one] a temporal phenomenon, not something that continues.

Thus, it would be established that the secondary cause [for the existence] of bodies would not be a 'necessary cause', and therefore the determination is that the secondary cause of bodies would be an 'agent of free choice'. Now, everything having an agent of free choice as secondary cause would be a temporal phenomenon, in accordance with what you know, that the action of an agent of free choice could not possibly be eternal.

Let no one ask why it would not be admissible for a secondary [but] necessary cause to bring into existence a body in a motion-change that seemed to be perpetual, its motion-change being the condition for these temporal phenomena and their alterations, so that the continuance of everything issuing from [that secondary but necessary cause] was not implied to be by an intermediate factor. Of course, it would still be true that some of what would issue from [the necessary cause] by an intermediate factor would be a temporal phenomenon not continuing by reason of [the cause's] continuance, because the condition for the existence [of this temporal phenomenon] would be the required motion-change that is renewed [but] has no continuance.

[That theory would not be admissible] because our position is that if the existence of these temporal phenomena should depend upon the existence of a motion-change and that motion-change [should depend] upon the existence of another motion-change, and so on without end, then the implication would be that there would be a coming together of endless motion-changes all arranged together both in position and nature within existence, which would be an impossibility; and that if the existence of these temporal phenomena should depend upon a motion-change that would be nonexistent T 132 after it had been in existence, L 279 then the necessary cause, along with the fact that this motion-change was nonexistent, would become a completely adequate and continuing cause for the existence of this temporal phenomenon. Therefore, the continuance of the necessary cause,—along with the fact that this motion-change would be nonexistent after having been in existence,—would imply the continuance of the temporal phenomenon.

An objection could be raised that the continuous motion-change of the [theoretical] body logically would require that there be a linkage of the individual phases of the motion-change [in a series] one

after the other without a beginning. As everything that precedes would have been prepared for whatever follows, this would not imply that there would be a coming together of [all] the motion-changes within existence, but rather, this logically would require that the motion-changes exist one after the other in orderly succession, and these motion-changes coming one after the other would be causes made ready for the existence of the temporal phenomena.

However, [in reply to the objection], the continuance of the effect might not be dependent upon the preparatory causes, so some temporal phenomena might continue after their preparatory causes had become nonexistent; while the continuance of other [temporal phenomena] might be dependent upon the preparatory causes and so might vanish with the vanishing of their preparatory causes.

Baydawi said:

L 279, T 132

c. Bodies are inseparable from temporal phenomena

The third [reason for the temporal nature of bodies] is 1.) that bodies never exist apart from temporal phenomena, and 2.) whatever does not exist apart from temporal phenomena would itself be a temporal phenomenon. The first point is clearly evident, and the second [point] will be proved in Section 1 of Book 2.

Isfahani says:

L 279, T 132, MS 140b

c. Bodies are inseparable from temporal phenomena

The third reason indicating that bodies are temporal phenomena in both their essences and their attributes is the argument that all the Mutakallimun take as their base. Its form is 'that no body exists apart from temporal phenomena, and whatever does not exist apart from temporal phenomena would itself be a temporal phenomenon'. The argument includes four propositions.

1. Temporal phenomena are an established fact.

2. It is impossible for a body³²¹ to exist apart from [temporal phenomena].

3. Nonexistence must precede [existence] for the totality [of all bodies].

³²¹ The MS has this noun in the plural.

4. Nonexistence must precede [existence] for anything that is inseparable from what nonexistence must precede.

The minor premise of the syllogism includes two of the four propositions, namely, the first and second; while its major premise includes the last two.

[Baydawi], our author, states that the former is clearly evident, that is, the minor premise is clearly evident, for combination and separation, motion-change and quiescence, and positions are [all] temporal phenomena, and bodies never exist apart from them. Also, he states that the latter will be proved, that is, the major premise will be proved in [Section 1, Chapter 2,] Topic 4, of Book 2.³²²

Baydawi said:

L 279, T 132

Arguments against the temporal nature of bodies

a. [First arguments] against the 'origination' of bodies. The opposition [i.e., the Greek and Islamic philosophers, and the Karramiyah sect of Islam] has used a number of arguments against the temporal nature of bodies.

1. If bodies should be temporal phenomena then the particularizing of their 'origination' at an appointed time would have taken place without an agent to cause the particularization, which would be an impossibility.

2. Every temporal phenomenon has matter, and that matter would be eternal in order to avoid an infinite series argument, and [matter] is not separable from 'form', so form would also be eternal; therefore, a body would be eternal.

3. Time duration is eternal; otherwise, its nonexistence would be antecedent to its existence in such a way that [the time duration] would not be actualized except within a time duration, so then before the existence of the time duration there would be another time duration. But this would be contrary [to our understanding], namely, that [time duration] is the measure of motion-change and it subsists in a body, therefore, a body would be eternal.

1.-a, 2.-a, 3.-a. To answer, the first [of their arguments] is answered by the fact that the agent of particularization would be the [divine] will. The second and third [arguments are answered]

³²² The order here is changed to a descending hierarchy. Ed.

by saying that their premises have neither been granted nor demonstrated. L 280

[Baydawi continues:]

b. [And then arguments] against the 'termination' of bodies. Furthermore, one should understand that the validity of predicating the 'termination' of bodies is derived from their 'origination'.

Now, even though they do acknowledge that [bodies] are temporal phenomena, the Karramiyah hold that they are everlasting. [They argue that] if [bodies] should become nonexistent, then their non-existence would be due either

1. to annihilation by an agent of annihilation, or
2. to their displacement [from existence] by the coming of an opposing factor, or
3. to the cessation of some condition.

But [to them] all these [reasons] are impossible.³²³ The 'Kalam' dialectic argument [by other scholars] has been proceeding with the issuance of formal statements and responses.

Isfahani says:

L 280, T 132, MS 141a

Arguments against the temporal nature of bodies

a. [First there are arguments] against the 'origination' of bodies. The argument of our opposition, namely, anyone who holds the theory that bodies are eternal, is as follows.

1. The first [argument against the temporal origination of bodies] is that if bodies should be temporal phenomena, then the particularizing of their origination at a determined time would be without an agent to cause the particularization. But the conclusion is false, and the premise is likewise.

An explanation of the logic used is that if [bodies] should be temporal phenomena, then they would have an effective cause, and that effective cause necessarily would be either

- a) eternal, or
- b) a temporal phenomenon. The second alternative inevitably would [be a causality that either]

³²³ F.D. Razi, op. cit., p. 137, lines 8-10.

1) [logically moves back until it] terminates at an eternal effective cause, or

2) it does not. This second alternative is impossible, otherwise the argument would be either circular or an infinite series, both of which are impossible.

So, it is determined that [bodies] have an effective cause that would be either

(a) eternal, or

(b) a temporal phenomenon that [logically moves back until it] terminates at an eternal effective cause. On both assumptions there must be an eternal effective cause. This eternal effective cause is bound to have every factor—that is involved in its being the effective cause of its effect—either

c) present with it in eternity, or

d) not [present with it]. If it should be the second alternative (d), then it³²⁴ would be depending upon a temporal phenomenon that would have its [own] effective cause, to which we will transfer the discussion.

So then we say that inevitably it would be [either]

e) that [the efficacy of the effective cause] would terminate in an eternal effective cause, or

f) that it would not. If it should be the second alternative (f), then implicitly the argument would be either circular or an infinite series, both of which are impossible. But if it should be the first alternative (e), then the efficacy of that effective cause upon the temporal phenomenon [either]

g) would depend upon a temporal precondition, or

h) it would not. If it should be the second alternative (h), then [the efficacy of the effective cause] implicitly would be eternal. [But] if it should be the first alternative (g), then we transfer the discussion to it.

Then the implication would be either

i) that [the efficacy of the effective cause] would be eternal, or

j) that there would be an infinite series of temporal phenomena having no beginning, which would be impossible.

If the first alternative (i) should be true, then inevitably [either]

³²⁴ MS gl: Le., the efficacy of the effective cause on its effects.

1) the occurrence of its effects would necessarily occur together with [the effective cause], or

2) it would not. MS 141b If the first alternative (1) should be true, then the eternity of its effects would be implied, and therefore the eternity of bodies would be implied. This would be contrary [to our proposition], but it is what was claimed.

But if [the second alternative (2) should be true, namely, that the occurrence of the effect together with the effective cause] should not be necessary, and if its³²⁵ existence should be admissible together with the fact that its effects would be nonexistent, then let us form a hypothesis concerning its essence³²⁶ together with all the things that should be considered in the transaction of cause and effect, at one time with these effects as existing, and at another time with these effects as nonexistent. [The case now would be one in which the question is either]

k) [if] the particularization of that exact time³²⁷—and not another—by the existence of that particular effect *should depend* upon [that exact time] being particularized by some [agent] entity on account of which that [exact time] would be preferable by reason of the existence of that particular effect, *then* that [entity as] particularizing agent would be considered in the transaction of cause and effect, as [the agent] would have been an entity existent before that, and therefore, whatever³²⁸ necessarily would be in the transaction of cause and effect would have been existent in past eternity. But, as the assumption was contrary to this, this [conclusion] is contrary. [Or],

l) if the particularization of that exact time—and not another—by the [existence of that particular] effect *should not depend* upon [that exact time] being particularized by some [agent] entity on account of which that exact time would be preferable by reason of the existence T 133 of that [particular] effect, *then* the particularizing of the temporal phenomena by that exact specific time would be a particularizing without an agent of particularization.³²⁹

2. The second [argument against the temporal origination of bodies]³³⁰ is that if bodies should be temporal phenomena then they

³²⁵ MS gl: [I.e., the existence of] the eternal effective cause.

³²⁶ MS gl: I.e., the essence of the effective cause.

³²⁷ MS gl: I.e., the exact time [waqt] of the effect's existence.

³²⁸ MS: [kāna kull mā lā budd lahu]; L & T: [kāna mā lā budd minhu].

³²⁹ MS gl: And this also would be impossible.

³³⁰ MS gl: I.e., the opponents' second argument.

would have matter. [This is] because if bodies L 281 should be temporal phenomena, then before their origination they would have been realities having the possibility of existence. The possibility [of existence] would demand a substrate established [as a certainty],³³¹ since [the possibility itself] would be an established certainty. That substrate would not constitute the bodies themselves, nor would it be a distinguishing factor for them.³³² Rather, it would be something closely associated with them, namely, matter. And matter is eternal, because if it should be a temporal phenomenon,—and every temporal phenomenon has matter,—then [all] matter would have other matter, and the argument implicitly would be an infinite series. Thus, it would be established that [matter] would be eternal. And matter does not exist apart from form that is also eternal; thus, the body [i.e., as a composite of matter and form] would be eternal.

3. The third [argument against the temporal origination of bodies] is that a time duration would be eternal, because if it should be a temporal phenomenon, then its nonexistence would precede its existence in the kind of precedence that could not be realized except within a time duration. So, before the existence of a time duration there would be [another] time duration. But this would be contrary [to the proposition]. Moreover, time duration is the measurement of motion-change, so motion-change also would be eternal. And motion-change subsists in a body, so a body would be eternal.

1.-a. The answer to the first argument [against the temporal origination of bodies] is that the particularizing agency would be the linkage of the will of God Most High to what He creates at that exact time.³³³

An objection might be raised to the effect that the linkage of the will of God with His creation at that exact time would have need for some other agency of preference [i.e., between existence and nonexistence], so then MS 142a the linkage of the [divine] will with what it causes to exist could be at some other exact time, because if the linkage of the will of God Most High with what He causes to exist should not be possible at another exact time, then

³³¹ MS gl: I.e., a possible reality would be an existent established entity.

³³² MS gl: Otherwise, the implication would be that a thing's attribute would be subsisting [qiyām] in its distinguishing factor, which would be false.

³³³ An 'exact time' [waqt] as differing from 'time' in its other aspects, of 'time duration' [zamān], 'time now' [ān], and the 'extension of time now' [dahr].

God Most High would be under obligation to Himself, not an agent of free choice.³³⁴ The discussion about this point then would be the same as what was said at first, and argument in an infinite series would be implicit. The answer [to this objection] is that the linkage of the will of God Most High to what He brings into existence at that exact time would be a necessary linkage, and so there would be no need for an agent of preference [between existence and non-existence].

[The objector's] statement is that if [the linkage] should be necessary, then God³³⁵ would be under obligation to Himself. [In reply, our position is that we do not grant that if the linkage of the [divine] will should be something necessary, [that] then God would be under obligation to Himself. That would be the implication only if [the linkage] should be necessary by way of the essence of God. However, if [the linkage] should be necessary by way of the [divine] will [instead], then no, [that would not be the implication].

An objection might be raised to the effect that to particularize the origination of temporal phenomena at a specific exact time would demand that that exact time be made distinct from all other exact times, and that [action] would require that [all] the exact times be in existence prior to [the creation of a given] temporal phenomenon. The reply [to this objection] would be that the exact times in which the making of a preference would be desired³³⁶ would be non-existent, and no distinction could be made between them except in one's estimation. Time duration would begin to exist only at the first [moment of] the world's existence, and no actual beginning in existence for all other things could possibly take place at all before time duration [itself] would begin to exist.

2.-a and 3.-a. The answer to the second and third [arguments against the temporal origination of bodies] is that the premises of both arguments are neither granted nor have they been proved, and we have referred earlier to the falsity of all premises used in the demonstration.

³³⁴ Reading with L, T, and MS Garrett 969Ha: [fā'ilan bi-al-ikhṭiyār]. The MS: [fā'ilan mukhtāran].

³³⁵ The formula "ta'āla'" following the mention of God [i.e., "May He be exalted" = [God] Most High] is sometimes dropped in the source texts to avoid too much repetition.

³³⁶ MS gl: i.e., would be demanded.

[Isfahani continues]:

b. [And then there are arguments] against the 'termination' of bodies.

One should understand that the validity of [predicating] the temporal termination of bodies is a corollary derived from their temporal origination. So if their origination should be established as valid, then the validity of their termination would be established; otherwise it would not be.

Now, while the Karramiyah³³⁷ acknowledge that bodies are temporal phenomena, they hold [nevertheless]³³⁸ that bodies are everlasting, since if bodies should become nonexistent after having been existent, then their nonexistence after their existence would be due either

1. to annihilation by an agent of annihilation, or
2. [to their displacement from existence] by the coming of an opposing factor, or
3. to the cessation of some condition.

And [in their view] all three [of these reasons] are invalid. [Therefore, say the Karramiyah], the doctrine that the world would be nonexistent L 282 after its existence, is impossible.

Dialectic argument on this [subject, i.e., by other scholars] has been going on in formal statement and response,³³⁹ but there is no harm in reviewing it [here].

³³⁷ MS gl: [One school] of the Mutakallimun.

Abu 'Abd Allah Muhammad ibn Karram [died in Jerusalem 255/869] was active in the Central and Eastern Muslim lands and in the Iranian areas especially. Thus, both Baydawi and Isfahani would have reason to know about him and his movement more so than writers based in the Western areas. Ibn Karram was held to be generally orthodox, but he leaned toward literalism and anthropomorphism in his teachings. He was aggressive in winning followers in the Nishapur region.

The Haysamiyah sect was one of the sects of the Karramiyah, and it was the one closest to orthodoxy. The founder, Muhammad ibn al-Haysam, according to al-Shahrastani in his *al-Milal wa-al-Nihal*, English translation as *Muslim Sects and Divisions* by A.K. Kazi and J.G. Flynn, p. 95, "tried to modify the view of Abu 'Abd Allah [Ibn al-Karram] on every issue. He has changed it from the crude and ridiculous to something intelligible. For example, on the question of anthropomorphism, he says that by the word 'body' [Ibn Karram] means that God is self-subsistent."

³³⁸ In the discussion here of the Karramiyah doctrines and their rebuttal Isfahani follows closely the arguments and phraseology used by Fakhr al-Din Razi in his *Muhassal* and Nasir al-Din Tusi in his *Talkhis al-Muhassal* [Page 137, line 8—p. 138, line 20, of the Cairo, 1323 A.H. reprinted edition]. The first person plural represents Razi, with whom Isfahani identifies his position.

³³⁹ Ibri, [commenting on Baydawi's *Tawafiq al-Anwar*], says here: [It is in] Book 1,

Razi's review of responses to the Karramiyah

(1.)—a. [In answer to the first of the three arguments by the Karramiyah for the necessity of the world's eternity] we [i.e., the orthodox school of F.D. Razi with which Isfahani identifies himself] hold, however, that it would not be admissible for [the world] to become nonexistent through 'annihilation' [by an agent of annihilation for the following reasons].³⁴⁰

a) If the 'annihilation' should be an 'event within existence', then that [particular event within] existence would not be exactly the same as a [mere] 'nonexistence of the world'.

b) If it should be otherwise, then that [particular event within] existence indeed would be MS 142b [not only] identical to a [mere] nonexistence [of the world], but rather [far more than that], the logical goal of [that particular event within existence] would be to require the nonexistence of substance [itself]. But then that [actually] would constitute an annihilation by an opposing entity, so [properly] it would be the second [reason of the Karramiyah against the nonexistence of bodies after their existence], not the first.³⁴¹

c) If [the 'annihilation' of the world] should not be an 'event within existence', then it would constitute a 'mere nonexistence' [of the world]. So it would be impossible for [such a 'mere nonexistence of the world'] to be derived from an effective cause, since there is no difference to the intellect between saying, "He has not been making anything at all", and saying, "He made nonexistence." If the case should be otherwise, then one of these two 'nothings' would be different from the other, and then each of the two 'nothings' would have individuality and phenomenal reality, thus, 'nothingness' would have phenomenal reality. But this would be contrary [to the facts].

(2.)—a. [In answer to the second of the three arguments of the Karramiyah] we hold, however, that it would not be admissible for [the world] to be annihilated through the temporal origination of an opposing entity, for two reasons.³⁴²

Section 2, Chapter 1, Topic 4, on whether accidents have permanence, but we will not prolong it.

³⁴⁰ F.D. Razi, op. cit., p. 137, lines 10–14. Isfahani appropriated the pages of this material as being reliable information which was considered at that time to be in the public domain. Nor was such use of it considered plagiarism, especially as he made mention of Razi's *Compendium* as its source.

³⁴¹ MS gl: [The first being] annihilation by an agent of annihilation.

³⁴² F.D. Razi, op. cit., p. 137, lines 16–22.

a) First, the temporal origination of an opposing entity would depend upon the exclusion of the other [or, first existing] 'opposite'. So, if the exclusion of the 'first existing opposite' should be caused by the temporal origination of this [second existing] opposite, then the argument would be implicitly circular, which would be impossible [to use].

b) Second, the opposition occurs from both sides, so that the exclusion of one of the [two sides] by the other would not be preferable to the reverse. Thus, the case would be either

1) that each of the two [sides] would be excluded by the other, which would be impossible, because the 'effective cause' making each of them nonexistent would be the 'existence' of the other, and the 'effective cause' would be occurring simultaneously with its 'effect'; so, if the two 'nonexistences' should be occurring together, then the two 'existences' would be occurring together, and [then] they would be two existents [which also would be two] nonexistents simultaneously,³⁴³ which would be impossible. Or, [the case would be]

2) that one of the two [sides] would not be excluded by the other, and then the implication would be that two opposing entities were coexisting.

(3.)—a. [In answer to the third of the three arguments of the Karramiyah]³⁴⁴ we hold, however, that it would not be admissible that [the nonexistence of the world] be due to the cessation of some condition, because that 'condition' would be no more than an accidental quality. Thus, the 'substance' would have need for the 'accidental quality', and the 'accidental quality' [already] had need for the 'substance', so the argument implicitly would be circular, which would be impossible.

(1.)—a. (additional) It may be said in reply [generally, following this rebuttal of the Karramiyah's reasons, that we can return to the first argument, namely, to ask] why it would not be admissible that [the world] become nonexistent through annihilation by an agent [of annihilation].

[Razi's summary] statement [in 1.a–1 above] is that [such an] act of annihilation either would be an 'event within existence', or it would not be such.

³⁴³ The MS alone omits 'simultaneously'.

³⁴⁴ Razi, *op. cit.*, p. 138, lines 5–7.

Our [Isfahani] position is that [Razi's statement] implies that nothing whatsoever would be annihilated, because then the question arises whether if a given entity should be annihilated would it be made new as an entity, or would it not be made new. Thus, if the thing should not be made new as an entity, then it [really] would not have been nonexistent; but if it should be made new, then what would be made new would be either [its] nonexistence or [its] existence.

It would not be admissible [for the option] to be '[its] nonexistence', because there would be no difference between saying, MS 143a 'it was not made new', and saying, '[its] nonexistence was made new'; otherwise, one of the two 'nonexistences' would differ from the other, which is impossible. But if it should be '[its] existence', then that [case] would constitute the temporal origination of another 'existence', not the nonexistence of the first existent.³⁴⁵

We have now granted T 134 the invalidity of this division [of the Karramiyah argument, namely, their first reason].³⁴⁶

(2.)-a. (additional) So, then [we ask] why it would not be admissible that [the world] be made to vanish through the origination of an opposing entity; [that is, we would return to the second argument of the Karramiyah].

[In explanation of this point Razi had] said,

"In the first place, the origination of a [new] temporal phenomenon [as a 'second existing opposite'] would depend upon whether the remaining ['first existing opposite'] would be nonexistent. Our [Razi and Isfahani] position is that we would not grant [this view], since we hold that the nonexistence of the remaining ['first existing opposite'] would be both the result of the [new] temporal phenomenon and [its] cause; and [even] if this [cause of the new phenomenon] should be impossible to separate from the resulting [nonexistence, still that cause] would have no need for the result."³⁴⁷

"And in the second place, [Razi said] the 'opposition' [between the two opposites] would be a commonality shared between the two sides. Our position is to ask why it would not be admissible that the [new] temporal phenomenon should be more powerful by reason of its temporal origination, even though we would not know the reason

³⁴⁵ [kān dhālik ḥudūthan li-wujūd ākhar lā 'adaman lil-mawjūd al-awwal].

³⁴⁶ MS gl: That is, annihilation by an agent of annihilation.

³⁴⁷ Razi, op. cit., p. 138, lines 14-15; reading from "in the first place" above here.

why³⁴⁸ [its] temporal origination would be the cause of its power."³⁴⁹
L 283

[Razi continues:] "We grant that this division [of the argument, namely, the second reason of the Karramiyah] is invalid."³⁵⁰

(3.)—a. (additional) [Again we ask] why it would not be admissible that the body should become nonexistent on account of the vanishing of a precondition. The explanation [of the Karramiyah] for this is that the 'accidental quality' [i.e., of the precondition] would not be permanent, and the 'substance' would not be able to exist apart from [the accidental quality], and if God Most High should not create the accidental quality then the substance would vanish."³⁵¹

[Razi's response] was, ["The Karramiyah] argument is implicitly circular. Our [Razi and Isfahani] position is to ask why it would not be admissible to hold that the 'substance' and the 'accident' would be a) mutual concomitants of one another even though one [of the two] might not need the other, as in the matter of the two mutual adjunctions [i.e., as mutual opponents]³⁵² and b) two effects of a single cause; then one of the two mutual concomitants would not exist in the absence of the other."

The foregoing is the argument [against the Karramiyah] that the Imam [Fakhr al-Din Razi] stated in [his book] *Muhassal*.³⁵³

³⁴⁸ A.M. Goichon traces Ibn Sina's usage of the word [li-mayyah] as an abstract [noun] formed from "why" [li-mā], meaning "the why" of something, e.g., of God's nature.

³⁴⁹ L, T, the MS, and MS Garrett 989Ha read: [sababan li-al-qūwah], the passage being translated here as "why the temporal origination would be the cause of its power."

However, F.D. Razi's text [*Muhassal*, p. 138, l. 17] reads: [salban li-al-qūwah], the passage then is translatable as "why the temporal origination would be a negation of its power."

³⁵⁰ MS gl: That is, annihilation by [displacement through] the occurrence of an opposing entity.

³⁵¹ Razi, op. cit., p. 138, to line 18.

³⁵² Reading [mutaḍāyifayn] with L, T, and the MS. Razi's *Muhassal*: [al-mutaḍāddayn] [p. 138, l. 20] seems truest to the context of a 'joint statement'. The reading, [mutaḍāyifayn], is Isfahani's actual usage here, although it would seem to be an anomalous change from the source being quoted. Confirmation that Isfahani intentionally changed the word is found in the closing paragraph of this discussion. Isfahani uses the term [mutaḍāyifayn] and contrasts its intent with that of the popular understanding of the example of the two mutual opposites [al-mutaḍāddayn], one of which is displaced by the other. Another possibility for this difference (in one or other of the texts) is that it might be an error in orthography.

³⁵³ Razi, op. cit., p. 138, to line 20.

[Nasir al-Din Tusi], the author of *Talkhis al-Muhassal*,³⁵⁴ stated in it that the doctrine of the Karramiyah was to the effect that the world is a temporal phenomenon that cannot possibly vanish. [Also] this was the doctrine held by al-Jahiz.

The Asha'irah and Abu 'Ali al-Jubba'i held that the vanishing of the world is rationally admissible. But Abu Hashim ['Abd al-Salam ibn al-Jubba'i] said that this [doctrine] was known only through tradition.

Thereupon the Asha'irah held that [the world] would vanish [if considered] from the standpoint that God Most High would not create the accidents whose existence [with them] substances need.

Qadi Abu Bakr [al-Baqillani] stated in certain places that those accidents would be [created as] 'instantaneous generations',³⁵⁵ and in [other] places that an 'agent of free choice' will cause the vanishing [of the world] without an intermediate agent. Likewise, Mahmud al-Khayyat³⁵⁶ held the same [doctrine]. Moreover, [al-Baqillani]³⁵⁷ says in another place that 'substance' MS 143b has need for a specimen³⁵⁸ of every genus of accidental qualities, so if [God] should not create any specimen then the substance would become nonexistent. Likewise, the Imam al-Haramayn [al-Juwayni] said the same.

Some of them held that if 'permanence', that is an accidental quality, should not be created, then 'substance' would become nonexistent. Likewise, al-Ka'bi³⁵⁹ held this doctrine.

Abu al-Hudhayl [al-'Allaf, d. 226/840-1] said, "Just as [God] has said, 'Be' and it had being", [Qur'an 2:117, et al.]³⁶⁰ so He will say,

³⁵⁴ Razi's *Muhassal Afkar al-Mutaqaddimin wa-al-Muta'akhkhirin* [title in translation: "Compendium of Thought Ancient and Modern"], printed together with Nasir al-Din Tusi's *Talkhis al-Muhassal* [title translated: "The Abridged Compendium"], edited by Taha 'Abd al-Ra'uf Sa'ad; reprint of the 1323 A.H. edition, Cairo, 197-?, pp. 136-139. Isfahani quotes Tusi, either verbatim or closely paraphrased, from here to the end of the topic.

³⁵⁵ [al-akwān] L. 283 gl: [Namely], the four [types of] 'instantaneous generation', namely, joining together, separation, motion-change, and quiescence.

³⁵⁶ Presumably the same as Abu al-Husayn 'Abd al-Rahim ibn Muhammad ibn 'Uthman al-Khayyat, d. ca. 300/913 [En-I-2 4:1162b]. al-Shahrastani, *Muslim Sects and Divisions*, tr. A.K. Kazi and J.G. Flynn, p. 64, mentions him as the [apparent] founder of the Khayyatiya sect of the Mu'tazila. He was the teacher of al-Ka'bi.

³⁵⁷ The MS has a coded reference to al-Baqillani.

³⁵⁸ L, T, and MS Garrett 989Ha have [naw'] in the singular; the MS has [anwā'] in the plural.

³⁵⁹ al-Ka'bi al-Balkhi, Abu al-Qasim ibn Muhammad, d. 317 or 319/929 or 931.

³⁶⁰ Isfahani narrates the action using the perfect tense for this verse: '[Kun fa-

'Vanish' and it will vanish." Abu 'Ali [al-Jubba'i] and Abu Hashim [said], "God Most High will create [the phenomenon of] vanishing, that being an accidental quality [of all bodies], and all bodies will vanish, and [that accidental quality] will not remain."³⁶¹ Abu Ali [al-Jubba'i] was saying that [God] would create the phenomenon of 'vanishing' for every substance, while the rest [of the Mutakallimun] held that a single [command] for the 'vanishing' would be sufficient to cause the vanishing of everything. The foregoing statements are their doctrines.

(1.-a.) (additional) The statement of Imam [Fakhr al-Din Razi] regarding annihilation being invalid because there would be no difference between saying, "He has not been making anything at all", and saying, "He has made nonexistence", is of no importance. That is because the difference between the two [statements] is perceived in [one's] intuitive reasoning. The statement that 'He has not been making', is a judgment of a continuity in course, and of the absence of anything issued by the [divine] agent. And the statement that "He has made 'nonexistence'", is a judgment of a renewal of the 'nonexistence' after it had not been [in effect], and of its being issued by its [divine] agent. This distinction between the two [examples of] 'nonexistence' is made by relating them both to two [examples of] 'existence', or by relating one of them and not the other.

(2.-a.) (additional) [Razi's] statement is: The answer to the second reason put forward [in the second argument of the Karramiyah] regarding the invalidity of an annihilation [of the world] by the occurrence of an opposing entity,—namely, that the opposition would be occurring on both sides equally, [and thus] it should be granted that a [newly originated] temporal phenomenon would be more powerful [in the opposition than would the already existing world],—even if we should not know the reason why it would be so, that [argument as reply] would not be an answer. The answer is what

kāna]' [Qur'an 2:117 et al.]. Note that here the text in the Qur'an itself always has [yakūn], in the 'present', or 'imperfect' tense.

³⁶¹ Reading with L, T, MS Garrett 989Ha, MS Garrett-Yahuda 4486, and Tusi's quote in his *Talkhis al-Muhassal* [p. 138]: [lā yabqa'].

A gloss in MS Garrett 989Ha interpreting this reading states here: That is, [the accidental quality] vanishes when its substrate [in the bodies] vanishes.

However, the scribe of the MS has read the clause: [wa-huwa lā yafna'] and has coded the antecedent of [huwa] as 'God' instead of the 'accidental quality of 'vanishing'.

we have explained, that the temporal phenomenon is more powerful by reason of the preference [given in existence] to an entity newly made to exist³⁶² over one that has been excluded [from existence].

(3.-a.) (additional) Regarding the invalidity of an annihilation [of the world] because of the cessation of a precondition, and [the argument] that the precondition would be no more than an accidental quality, that is a mere claim. L 284

Indeed, it would be admissible that there be a precondition that would not be an accident, just as 'substance' would be the substrate, as a precondition, in bringing accidents into existence within it. Moreover, it would be admissible that the precondition be neither substance nor accident, but rather, a nonexistential entity,—an explanation has already been given³⁶³ for the admissibility of such a precondition,—and the cessation of that MS 144a [nonexistential] entity would entail the annihilation of what had been conditional [upon it].

Imam [Razi's] explanation regarding the accident being a condition in annihilation,—in that the accident does not continue and the substance cannot exist apart from it so [the substance] is annihilated upon annihilation of [the accident],—would not be a useful explanation with these antagonists, since the Karramiyah do not hold that position as do the Mu'tazilah.

But to infer [as do the Karramiyah] that the argument would be implicitly circular because the substance has need for the accident would be invalid. This is because a circular argument would exist only [in a case where] the object of need ['B'] would [in turn itself] have need for the agent ['A'] that [already] has the need for [this original] object of need ['B']; [and this would be all within the same reference frame ['C'] whereby ['A'] needs ['B']].

But this is not the case here: the need of the substance ['A'] for some accident or other ['B'] is not due to [the substance's] own nature nor is it for a particular accident;³⁶⁴ but a particular accident does have need of a body because of [the accident's] own nature. Thus, a circular argument would not be implicit.

Imam [Razi's] answer regarding the admissibility of there being a mutual concomitance [between two entities] without there being

³⁶² Reading [mūjad] with L, T, MS Garr. 989Ha; the MS alone has [mawjūd].

³⁶³ See (2.-a.) above.

³⁶⁴ I.e., it is not within the same reference frame ['C'] whereby ['A'] needs ['B'].

any need of one for the other, [again] would not be useful here. Indeed, an accidental quality, if it is to exist, does need a body [to be its substrate]; and, if the mutual concomitance should be due to the need of each of the two mutual concomitants for an identical nature in the other, then it would be impossible. But if [the relationship] should be without there being any need of one for the other, or for whatever would be linked to the other, then it would be inconceivable. That would be an association by agreement, one that would not require the impossibility of separation.

Thus, to introduce [here] the example of the two entities that are mutual adjunctions according to the popular understanding³⁶⁵ would not be correct.³⁶⁶

Indeed, the adjunction of each of the two entities [i.e., to the other] has need within existence for the essence of the other [entity], not for the adjunctive relationship to it. Furthermore, each of the two effects of a single cause has need for the cause of the other, so in neither of them would there be an absolute absence of need, [and this is] without there being an implicit circular argument.

Baydawi said:

L 284, T 134, MS 144a

5. *Bodies as limited entities*

The dimensions that exist are limited, equally whether they are posited in a void or in a plenum; and this is contrary to T 135 [the doctrine of the philosophers of] India.³⁶⁷

³⁶⁵ The popular understanding of the example of the two entities is that they are opponents one of which displaces the other. Here is the confirmation that Isfahani changed from using the term "two opposing entities" [mutaḍāddayn], as in the relevant context being quoted in Razi's *Muhassal*, substituting "two mutual adjunctions" [mutaḍāyifayn]. Razi, as interpreted by Nasir al-Din Tusi, also uses the latter terminology [i.e., two mutual adjunctions], in closing his discussion of the topic. [See Tusi's *Talkhis al-Muhassal*, printed with the *Muhassal* of Razi, Cairo 1323 reprint ed., p. 139, next to last paragraph.]

³⁶⁶ MS gl: Because the popular understanding is that neither of the two mutual adjunctions has need for the other.

³⁶⁷ In the *Dictionary of Philosophy*, ed. by Dagobert D. Runes (Totowa, N.J.: Rowman & Allanheld, Reprinted 1984), see especially the articles by Kurt F. Leidecker, e.g., "Indian Philosophy", "Buddhism", "Samsara", "Karma", "Moksa", "Nirvana", etc.

The first quote is from "Indian Philosophy", and the second is from "Buddhism":

1. Indian Philosophy: . . . "All Indian doctrines orient themselves by the Vedas, accepting or rejecting their authority. In ranging from materialism to acosmism and

Our theory is that if we should assume a line of unlimited length and a line of limited length parallel to the first, and if [the limited line] should bend around to be heading toward an intersection [with the unlimited line], then inevitably there would be a point that would be the point beginning the angle of intersection, and the unlimited line would be interrupted by [that point].

If it should be otherwise, then the point [marking where the] beginning of the intersection [would have been] would be included with what is above it [on the line], and thus, the 'line without limit' would become [a 'line marked and] limited'. But this would be contrary [i.e., to our theory].

[The philosophers of India] argue that what is beyond every body is something distinct that may be referred to by sensate perception, since what lies next to a body's south [extremity] would not be what lies next to its north [extremity]; and everything of that sort [that is, is sensately perceived] would be an existent entity, either a body, or a corporeal entity. And so, [they reason], it is an established fact that what is beyond every body would be another body [and so on] without end.

But [their] argument is ruled out, as the distinction [they claim] is a pure estimation and thus it is not firmly established.

nihilism, from physiologism to spiritualism, realism to idealism, monism to pluralism, atheism and pantheism, Hindus believe they have exhausted all possible philosophic attitudes, which they feel supplement rather than exclude each other. A universal feature is the fusion of religion, metaphysics, ethics and psychology, due to the universal acceptance of a psycho-physicalism, further exemplified in the typical doctrines of karma and samsara." (op. cit., p. 160.)

2. Buddhism: "The multifarious forms, philosophic, religious, ethical and sociological, which the teaching of Gautama Buddha have produced. They centre around the main doctrine of [catvari arya-satyani], the four noble truths, the last of which enables one in eight stages to reach nirvanā right views, right resolve, right speech, right conduct, right livelihood, right effort, right mindfulness, right concentration." . . . "The basic assumptions in philosophy are: a causal nexus in nature and man, of which the law of karma is but a specific application; the impermanence of things; and the illusory notion of substance and soul. Man is viewed realistically as a conglomeration of bodily forms (rupa), sensations (vedana), ideas (sanjna), latent karma (samskaras), and consciousness (vijnana)." (op. cit., pp. 57-58.)

Isfahani says:

L 284, T 135, MS 144a

5. *Bodies as limited entities*

The dimensions³⁶⁸ that exist externally have their limits, equally whether they are posited to exist in a void^{369, 370} or in the plenum.³⁷¹ [This is] contrary to [the doctrine of the philosophers of]³⁷² India.

Our theory is that—

a. if we should assume L 285 [that there is] a line of unlimited length, and if we should assume another line of limited length parallel to the first, and if the limited line should bend around from the parallel to head towards an intersection [with the unlimited line]³⁷³ then necessarily there MS 144b would be a point that would be the beginning point of the angle of intersection. Thus, the line assumed to be without end would be interrupted by that point; and in the assumption [that point] would be the beginning point of the angle of intersection.

[This (a.) would be true] because—

b. if the line assumed to be without end should not have been interrupted by that point, then beyond [where] that point—assumed to be the beginning point of the angle of intersection—[would have been] there would be more of the line. So the beginning of the angle of intersection would be somewhere above [where it would have been]; because [the probability of] the intersection being [at a point] farther up the line would come before [the probability of] the intersection being [at a point] farther down.³⁷⁴

³⁶⁸ MS gl: The dimensions are the extensions that a body has, in length, width and depth.

³⁶⁹ MS gl: This being the location of dimensions in the abstract.

³⁷⁰ MS and L 284 gl: [I.e.], if it should be admitted that there is a void. What is meant here is that the limited nature of dimensions does not depend on rejection of the void.

³⁷¹ MS gl: As are the dimensions associated with corporeal matter.

³⁷² T adds "to the philosophers of"; L, MS & Garrett MS 989Ha have merely "to India" [khilāfan li-al-Hind].

³⁷³ MS gl: What is meant by the 'intersecting course' [al-musāmatah] is that if the two lines are extended in [either] one of the two directions they would meet.

³⁷⁴ MS gl: [The author] means by 'above' that which is near to the end from which the two lines started [i.e., assuming the lines in the figure to have been drawn from the top of the page downwards], while 'below' is what is far from that end.

And therefore, [what we had assumed to be the beginning point of the angle of intersection [in fact] would not be the beginning point of the angle of intersection. This would be contradictory [to the theory].

Thus, it would be determined that the line we had assumed to be unlimited in length would be interrupted by that point, and the line assumed to be unlimited in length [in fact] would be limited in length. This also would be contradictory [to the theory].



The argument put forward by [the philosophers of] India³⁷⁵ was that whatever is beyond every body is something distinct that may be referred to by sensate perception. [This is] because a sound intelligence observes that whatever is at the end beyond the south extremity is different from whatever is at the end beyond the north extremity. Nothing arranged like that would be a pure nonexistence, because pure nonexistence would have neither particularization nor realization in it. How then could any distinction take place so that something would become existent, and there would be no doubt that it could be referred to by sensate perception, and thus be [either] a body or corporeal [in nature], the corporeal being inseparable from the body? Thus, it would be established [in their reasoning] that beyond every body would be another body, [and so on] without end.

[This argument] has been rejected because beyond the universe one aspect may not be distinguished from another aspect, and the judgment that there would be this distinction belongs [only] to the

By 'inclination' [mayl] [he means] the 'aperture' [al-furjah] occurring between the two lines because of their straightness. That is, farther up [the two lines] the aperture between them becomes narrower than the aperture occurring lower down.

³⁷⁵ MS gl: [I.e., the argument] for the absence of any limit upon the dimensions.

estimation, not to the intellect. Such distinction would be pure estimation having no proof, and the judgment that anything may be distinguished outside [the universe] is false. Indeed, whatever has no existence at all, would not have in it any distinguishability at all.³⁷⁶

³⁷⁶ In the outlined course of Baydawi's last two topics we have not found many close correlations with Ibn Sina's philosophical discussion of bodies in Volume 2 (on physics) of his book *al-Isharat wa-al-Tanbihat*. Ibn Sina makes intriguing statements about bodies from various aspects:

- the position and shape they implicitly may have (2:226–7);
- the possibility of their self-improvement by motion-change (2:229);
- the relative need to move in differing ways and whether such movements would be straight or circular (2:230);
- the fact of generation and corruption as complicating the existence of bodies (2:235–39);
- the elements in simple bodies and their various motion-changes into mixed blends (2:242–59);
- the continuum from primal matter through elemental bodies into composite complex structures (2:259–69).

Ibn Sina then culminates these observations in a statement about the divine Maker's intent, followed by N.D. Tusi's commentary upon it (2:286–7):

IBN SINA: "Observe the wisdom of the Maker, how He began and created the original elements, then created from them the various blends, and prepared every blend for a species, making the blend farthest from the mean for the species farthest from perfection; and making the one closest to the possible mean the blend for mankind, to provide him a nest [li-tastawkirahu] for his rational soul."

N.D. TUSI: I believe [aqūl] that Shaykh Ibn Sina in this portion had observed the expression used by the venerable Shaykh Abu Nasr al-Farabi in his [philosophical] summary called *Uyun al-Masa'il*, where he said of the Most Highly Exalted Creator that He created the original elements, and from them He showed forth various blended substances, and marked every blend for a species, making every blend far from the mean a cause for every species that was far from perfection. And He [then] set up the species nearest the mean as the blend [reserved for] humankind, to be suitable for receiving [the human] 'rational soul' . . . In saying, "to provide him a nest", there is a gentle metaphor announcing the incorporeality of the human soul, in that [God] made its relationship to the blend to be like that of a bird to its nest.

CHAPTER 2: INCORPOREAL SUBSTANTIAL BEINGS¹

1. *Classes of incorporeal substantial beings*

The substantial beings not observable [by human sense perception]

- a. are either the 'effective causes', or, the 'governors' of bodies,
- b. or they are not the effective causes or the governors of [bodies].

1. The first [group, i.e., the 'effective causes'] are the 'Intellects [of the Celestial System]² and 'Angels of Celestial Rank'.

2. The second [group, i.e., the 'governors'] subdivides into

- a) higher [beings], namely, the 'Souls of the Celestial System' and 'Angels of the Heavens', and

- b) lower [beings] in the elemental world who govern either
 - 1) simple bodies and the species of all existing beings,—these governors being called 'Angels of the Earth', to whom the Keeper of Revelation, prayers be to God for him, referred when he said,

"There came before me the Angel of Rivers, the Angel of Mountains, the Angel of Rains, and the Angel of Harvests,"³—or, [they govern]

- 2) 'particular individuals', these [governors] being called 'Souls of the Earth', such as are [human] 'rational souls'.

¹ Professor Calverley provided a summary of [Book 1, Section 3,] Chapter 2 in his article, "Nafs" in both editions of the En-I. The bibliography was updated by I.R. Netton for En-I-2).

² This is a series of ten celestial intellects, God being one of them, as the first of the series. The Second Celestial Intellect [sometimes called the First Produced Celestial Intellect] is given being by intellectual creation by the One. With the Third through the Tenth intellects, each intellect emanates from the one preceding. "It is noteworthy that the belief that each celestial sphere has a separate intelligence of its own, originated from Aristotle who even held that there were not ten intelligences but fifty or more." [Saeed Sheikh, *Dictionary of Muslim Philosophy*, p. 75, [al-'Uqūl al-'asharah].

³ "Rivers", literally, 'seas'. This hadith was not located by a search in Wensinck's *al-Muḥjam al-Mufahras li-Alfaz al-Hadith al-Nabawi* (= *Concordance et indices de la tradition musulmane*).

3. The third [class, i.e., not effective causes or governors] divides into

a) those 'Good in themselves', namely, the 'Angels of the Divine Presence',⁴ and

b) those 'Evil in themselves', namely, the 'Devils', and

c) those 'Ready for good or evil', namely, the 'Jinn'.

The plain doctrine of the philosophers is that the 'jinn' L 286 and the 'devils' are human souls separated from their bodies. Although most of the Mutakallimun denied [the reality of] incorporeal substantial beings, they did teach that the angels, the jinn and the devils are 'elusively thin bodies capable of assuming various shapes'.

This is all information that I [Baydawi] have taken from the prophets, and gems⁵ that I have gathered from the philosophers. For the mind to comprehend all these things by way of proof probably would be an impossible task. As God Most High has said,

"No one knows [all] the warriors of your Lord but He." [Qur'an: 74:31]

Isfahani says:

L 286, T 135, MS 144b

CHAPTER 2: INCORPOREAL SUBSTANTIAL BEINGS

After finishing Chapter 1 on bodies, [Baydawi] began Chapter 2 on incorporeal substantial [or, transcendental] beings in which he presented seven topics:

1. the classes [of incorporeal substantial beings], 2. the intellects of the celestial system, 3. the souls of the celestial system, 4. the incorporeal nature of human 'rational souls', 5. the temporal MS 145a nature of 'rational souls', 6. the manner of the 'rational soul's' linkage to the body, 7. the permanence of the 'rational soul'.

⁴ In his *Commentary on the Qur'an* Baydawi identifies the angels who are assigned to stand near the divine throne [Qur'an: 4:170—*al-malā'ikah al-muqarrabūn*] as "cherubim" or "archangels" [Karrūbiyūn].—Duncan Black Macdonald, article "Mala'ikah" in *En-I-2*.

⁵ Reading [farā'id] with T, MS Garrett 989Hb and MS Garrett 283B. L alone reads [fawā'id], repeating instead of paralleling the previous noun.

[Isfahani continues]:

L 286, T 135, MS 145a

1. *Classes of incorporeal substantial beings*

Topic 1 is on the classes of substantial beings that transcend matter, namely, those that are neither a body nor corporeal [in nature].⁶ The substantial beings not observable [by human sense perception]

- a. are either the effective causes or governors of bodies,
- b. or they are not the effective causes or governors of bodies.

1. The first [class], namely, those invisible beings that are the 'effective causes' of bodies, are the 'Intellects of the Celestial System' and the 'Angels of Celestial Rank', according to the scholars of our religion.

2. The second [class], namely, those invisible beings that govern bodies, are subdivided into

a) higher beings who govern higher, that is, celestial bodies, these [governors] being the 'Souls of the Celestial System', according to the philosophers, and 'Angels of the Heavens', according to the scholars of religion, and

b) lower beings who govern in the elemental world, governing

1) either simple bodies of the four elements, T 136 fire, air, earth, and water, and the species of all existing beings,—[in this governing role] they are called 'Angels of the Earth', as they are the ones to whom the Keeper of the Revelation, prayers to God and peace be upon him, referred when he said,

"There appeared before me the Angel of Rivers, the Angel of Mountains, the Angel of Rains, and the Angel of Harvests;"

2) or particular individuals, and [in this governing role] they are called "Souls of the Earth", such as are [human] "rational souls".

3. The third [class], namely, those invisible beings who are neither the effective causes nor the governors of bodies, are subdivided into

a) those 'Good in themselves', namely, [those called] the 'Angels of the Divine Presence' by the scholars of religion, and

b) those 'Evil in themselves', namely, the Devils, and

⁶ MS gl: I.e., neither inhering in a body nor part of it; so in that case primal matter is excluded.

c) those 'Ready for either good or evil', namely, the Jinn.

The plain doctrine of the philosophers is that the jinn and the devils are human souls that have separated from their bodies. If they should be evil, then the attraction is strong to any human souls that resemble them, and they relate themselves in any way [they can] to these [souls'] bodies, and they help them⁷ in doing evil, that one being a devil. L 287 And if they should be good, MS 145b then the reverse is the case.

Most of the Mutakallimun denied [the existence of] incorporeal substantial beings,—as was indicated in Book 1, Section 1, Chapter 1,—but still they taught that the angels, jinn, and devils are [elusively] thin bodies capable of assuming various shapes.

The early Mu'tazilah denied [the existence of the angels, jinn, and devils]. [This was] because if [in body] they should be elusively thin, then necessarily they would not be strong enough to perform any acts at all, and their [bodily] composition would be destroyed by the least cause, while if [in body] they should be obviously stout, then necessarily we would observe them; otherwise, it would be possible for mountains to be in our immediate presence and we would not see them.

This [denial by the Mu'tazilah] was answered [by the question], why would it not be admissible that [these beings in their bodies] be elusively thin in the sense of having no color, not in the sense of a fragility of subsistence. And even if it should be granted that they would be obviously stout, we would not grant that we would see them necessarily, because when something obviously stout is present it is not necessarily visible.

It is related of the Mu'tazilah that they taught that the angels, jinn, and devils were one in species but were different accordingly as their actions differed. Those doing nothing but good are 'angels', those doing nothing but evil are 'devils', and those that do good sometimes and sometimes do evil are the 'jinn'. For that reason Iblis⁸ is counted with the angels sometimes and sometimes with the jinn.

Our author [Baydawi] stated: "The [outline] classification that I have presented here is all information I have taken from the prophets

⁷ MS gl: [I.e.], evil souls.

⁸ Iblis is the proper name of the devil, later called [al-shayṭān]. Cf. the article, "Iblis" in *En-I-2* by A.J. Wensinck, updated by L. Gardet.

and gems I have gathered from the philosophers, and for the mind to comprehend all these things by way of proof probably would be an impossible task. As God Most High has said,

“‘No one knows [all] the warriors of your Lord but He.’” [Qur’an: 74:31]

Baydawi said:

L 287, T 136

2. *The intellects of the celestial system*⁹

The philosophers taught that [the Celestial Intellects] are the greatest of the angels and the first created things [in existence]. [This is] just as it is recorded of [Muhammad], peace be upon him, that he said,

“The first thing that God Most High created was the Intellect.”¹⁰

The strongest evidence [the philosophers] have in the proof [of this doctrine] is set forth in two points.

a. The first point is that the proximate existential cause of the Celestial Spheres is not the Creator Most High, for He is One, and from the One neither a composite [body] nor any [other kind of] body would issue. This is because

1. if [the One] should encompass [the spheres], then [the One’s] existence necessarily

a) would precede [the spheres’] existence, and

b) would be simultaneous with the nonexistence of the void; and [thus] the void [implicitly] would be a possible reality in itself, which is impossible. And [it is because]

⁹ Added in the MS and MS Garrett 989Ha: “Namely, the incorporeal substantial beings that are effective causes [in dealing] with bodies.”

¹⁰ The hadith naming the first thing that God created has possibly been transmitted in three forms, the created entity being either 1) the First (or, second) Celestial Intellect [al-‘aql], 2) the Pen [al-qalam], or 3) the Light of the Master of Prophets [nūr sayyid al-anbiyā’], also known as [al-nūr al-Muhammadi].

See the En-I-2 articles, “‘aql”, by Tj. de Boer and F. Rahman, “kalam” by Cl. Huart and A. Grohmann, and “nūr Muḥammadi”, by U. Rubin. These articles refer to each of the three as separate hadiths, citing authors that quote each of them. But surprisingly, no standard compendium of hadith is cited as listing any of them. The note provided in the MS at the matching passage in Isfahani’s text records a suggested reconciliation of the different forms of this hadith as proposed by the medieval Muslim scholars. In the form, “The first thing God created was the pen”, this hadith (assuming it to be one form of the same hadith) was located in *al-Muḥjam al-Mufaḥras li-‘Alfaz al-Ḥadīth al-Nabawī* (Concordance et Indices de la tradition musulmane) as follows: *Ṣaḥīḥ al-Tirmidhī* ‘Tafsīr al-Qur’an’ 44, Surah 68; and *Sunan Abi Da’ud*: ‘Sunna’ 39, 16.

2. if [the spheres] should encompass the One, then the implication would be that something base would be the cause of something noble. And [it is because]

3. a body would have an effective causality only upon a receptive entity that would have [both] a 'position' and some 'relation to' [the body]. It would not have effective causality [either] on 'primal matter' or on a 'form', since primal matter would not have a position before the form would join it, and [the form] would not have an individuation before the primal matter would join it. Thus, [a body] would have no effective causality [either] on a body or on anything whose activity would depend upon a body.

b. Therefore, the existential cause of [the Celestial Spheres] would be an 'incorporeal substantial being' capable of functioning [directly and] without an [intermediating] instrument; that is, [it would be] the Second Intellect [i.e., the 'First Produced Celestial Intellect']¹¹ that comes as the first of all [created things] from God Most High.

This [existential cause] would not be

1. an accidental quality, because that would not precede substance, and what would come first would be the cause of all other realities possible.¹² Nor would it be

2. a body, because that would not be a cause for anything other than itself, because of what we have already said. Nor would it be

3. primal matter, L 288 or

4. form; otherwise, one of the [latter] two would precede the other, and since 'primal matter' is the receiving substrate for 'form'

¹¹ In the system of Plotinus, which Baydawi follows here in the tradition of Farabi and Ibn Sina, the first produced intellect [al-'aql al-awwal] is produced either by emanation or by intellectual creation as the first of all things by the First Principle, namely, God. Muslim writers have avoided the notion of emanation from God, and prefer to speak of divine production as by creation. With them the First Intellect [i.e., after God the One] was either 'produced' or 'created'.

Saeed Sheikh, [op. cit., p. 73 under "[al-'aql al-awwal]"], writes: "The existence of the first intelligence is possible in itself as well as necessary through the First Principle; further, it knows its own essence as well as the essence of the First Principle. From its twofold existence and twofold knowledge springs, according to the Muslim Peripatetic philosophers like al-Farabi and Ibn Sina, the whole series of emanations, i.e., the nine celestial spheres with their nine intelligences as well as their nine souls."

¹² T alone inserts here: "For then the accident would be the cause of the substance that precedes it, and that would be absurd."

L's text is supported by MS Garrett 989Hb and MS Garrett 283B.

it would not be an active cause of [the form]. It is determined [then] that 'form' derives benefit from 'primal matter', and that 'primal matter' does not come from [the form] or from anything whose activity depends on a body. Therefore, [the existential cause of the celestial spheres] would be an 'intellect'. And this [First Produced Celestial Intellect] has its

- a) 'existence' from the First Principle [i.e., God, the One], [its]
- b) 'necessity' from observing [the First Principle], and [its]
- c) 'possibility' from the essence [of the First Principle].

On this basis, therefore, [the First Celestial Intellect] is constituted the cause of another [second celestial] intellect, [celestial] soul and celestial sphere. And so, from the second [i.e. the First produced celestial] intellect for this reason, there comes [by emanation] the 'third intellect' and another celestial sphere and its soul; and so it goes until the 'tenth intellect'. This [tenth] one is called the 'Active Intellect',¹³ and it is referred to as

- 1) the 'Spirit' in the statement of the Most High,

"On the day when the Spirit shall stand forth . . .", [Qur'an 78:38] and

- 2) the 'Effective Cause' in the world of the elements, and

3) the '[Generous Being]' who pours out of its own nature an abundant provision for the spirits of humankind.

Now, the 'pen' appears to be taken as a metaphor for the 'intellect', from the Saying of [the Prophet], God's blessing and peace be upon him,

"The first thing that God Most High created was the pen, for [God] said, 'Write'. Then [the Prophet] replied, 'What shall I write?' Then [God] said, 'The decree particularizing [the existence] of what has been and what shall be forever.'"¹⁴

The 'tablet'¹⁵ is the 'second created thing', and it appears to be a metaphor for the 'throne' [of God], or anything joined to [the

¹³ [al-'aql al-fa'āl]. The First Intellect cannot be overlooked, if adding the nine totals the ten.

¹⁴ "According to the traditions quoted by al-Tabari (*Tafsir*, Bulak 1323-30, Qur'an 29:107) the [qalam] was the first thing created by God so that He could write down events to come." [From the article, "kalam" in *En-I-2*, by Cl. Huart and A. Grohmann.]

¹⁵ With the 'pen', the 'tablet' is implicitly necessary as the 'writing surface'. Closely related in significance is the 'place of storage' for the 'writings'.

throne], according to the statement of [the Prophet], upon whom be God's blessing and peace,

"No created thing exists whose recorded form is not kept underneath the Throne."¹⁶

Isfahani says:

L 288, T 136, MS 145b

2. *The intellects of the celestial system*

The second topic is on the [Celestial] Intellects, that is, 'incorporeal substantial beings' that are Effective Causes in dealing with bodies. The philosophers taught that the [Celestial] Intellects¹⁷ are the greatest of the angels, that they are the first among created things, and that they are existent realities possible before whose existence there was no nonexistence T 137 measurable in time duration.

This is just how it has been reported of the Prophet, upon whom be God's blessing and peace, that he said, "The first thing that God created was the 'intellect.'¹⁸

The strongest evidence the philosophers MS 146a have to demonstrate the existence of the [Celestial] Intellect is set forth in two points.

¹⁶ This tradition has not been located in the concordances. Related to this tradition is the verse: "We wrote out for him on the tablets a description and detailed explanation of all things." [Qur'an 7:145] In other words, what is recorded are the archetypal concepts resulting from this descriptive and delimiting definition of all things; that is, all the original archives and architectural sketches of creation are preserved within the jurisdiction of the throne, literally, 'underneath' it.

¹⁷ The scribe of L wrote "[al-qūl]" instead of the complete spelling [al-'uqūl]; T omits ['uqūl] here, using a pronoun instead, but the MS does supply the noun.

¹⁸ MS gl: Some of [the Muslim scholars] have expressed a point of view reconciling this [tradition] and the two other traditions, [namely], "The first thing God created was the pen" and "The first thing God created was 'My Light'" [nūrī]. This first [divinely] caused effect [awwal mā khalaq Allāh], a) wherein it is an abstract intellectualization of its [the effect's] essence and principle of origin, is called 'Intellect', and b) wherein it is intermediary in the production [ṣudūr] of all other existents and in the recording of the sciences, is called 'Pen', and c) wherein it mediates in [God's] pouring out of the lights of prophecy, it is the 'Light of the Master of Prophets' [i.e., often known as 'al-Nur al-Muhammadi], upon him be peace. [Coded simply as "M", this gloss is possibly excerpted from Jurjani's commentary on Ijī's *Mawaqif*].

This important comment, found as a gloss in the MS at folio 145b, is complemented by the fact that in their respective concluding statements on this topic Baydawi and Isfahani treat the second hadith ("The first thing . . . was the Pen") as a metaphor of the first hadith ("The first thing . . . was the Intellect").

a. The Celestial Spheres are possible realities because they are composite entities,¹⁹ every composite entity being a possible reality. An existent reality possible has a proximate cause of existence, that is, one in which there is no intermediary agent between it and its effect.

However, the proximate cause of existence for the celestial spheres would not be the Creator Most High, because He is truly One, and from the True One no body would ever emanate, as a body is a composite entity and from the True One no composite entity would ever emanate. Nor would it be admissible that the proximate cause of the existence of the Celestial Spheres should be some body other [than the spheres].

1. This is because if the other body should encompass the celestial spheres, then [that body's] existence would take precedence over the existence of the celestial spheres, because the encompassing entity as a cause necessarily would take precedence in [its] existence and necessity over the entity encompassed in the latter's existence and necessity.

Now, the existence of the 'entity encompassed' and the non-existence of the 'void' are closely associated together inside the encompassing entity. Indeed, the nonexistence of the void inside the encompassing entity is a factor the regard for which would be associated closely with regard for the existence of the entity encompassed, in such a way that it is inconceivable for one to be separated from the other. So the nonexistence of the void, being together with the entity encompassed that comes later [in existence] than the encompassing entity, would [also] come later than the encompassing entity. If we should consider the individuation of the encompassing entity as a 'cause', [then] along with the [encompassing entity] the entity encompassed as 'effect' would [also] have the possibility of existence. [This is] because the individuation of a 'cause' would take precedence in existence and necessity over the individuation of an 'effect', and the [effect's] existence and necessity L 289 would come after the existence and necessity of the 'encompassing entity'. Therefore,

¹⁹ Ms gl: [a composite of] primal matter and form.

Isfahani presents the philosophers' reasons, this first one of which appears to be a contradiction of the doctrine given in the preceding Chapter 1, Topic 3, of this Section 3. There the celestial bodies are simple bodies; composite bodies are made from the elements.

the case inevitably would be [either] a) that the nonexistence of the void would be necessary together with the necessity of the encompassing entity, or b) [the nonexistence of the void] would not be necessary together with the necessity of [the encompassing entity].

a) So, if [the nonexistence of the void] should be necessary together with the necessity of [the encompassing entity], then the encompassed 'plenum' [also] would be necessary together with the necessity of the encompassing entity. [This is] because the 'nonexistence of the void' inside the encompassing entity would be a matter closely related to the matter of the 'existence of the encompassed plenum'. But we have shown that the encompassed plenum is not something 'necessary' together with the necessity of the encompassing entity.

b) Therefore, the implication is that the nonexistence of the void inside the encompassing entity also would not be 'necessary' together with the necessity of the encompassing entity. Thus, the 'nonexistence of the void' would be a 'possible reality' together with the necessity of the encompassing entity, and so the void would be a 'possible reality' in itself. But this is impossible because it has been shown that the void is an impossibility in itself.

2. But if the celestial spheres should encompass that other body, that is, the proximate cause [of existence] of the celestial spheres, MS 146b then the implication would be that a base, weak, and small thing would be a cause of what is noble, strong, and great. This would be impossible, for no estimation will go as far as to theorize that the noblest, strongest, and greatest would be caused by what is base, weak, and small.

3. Furthermore, [it would not be admissible that the proximate cause of the celestial spheres be some other body] because it is not admissible—absolutely—for a body to be the cause of another body, equally whether or not one encompasses the other. [That is true] because [a body] is an effective cause only [in dealing] with a receptive substrate²⁰ having a position relating to it. And this is because the body acts through its 'form',²¹ since it is an active agent only as it actually exists, since anything not actually existing cannot be an active agent, and the body actually exists only through its form, because through its matter a body would exist only potentially.

²⁰ MS gl: I.e., a receptive substrate for an effect.

²¹ MS gl: Not through its matter.

Action that issues from the body's form, issues from that form only in commonality with its position, because the form subsists only in its matter. So likewise what issues from the form, after the form has its subsistence by the intermediation of that matter, would be in commonality with the position. For that reason fire will not heat just anything at random, but rather whatever may be juxtaposed to its [flaming] body, or has a special position in relation to it. Similarly, the sun will not shine light on everything, but rather upon whatever confronts its [solar] body]. So then, a body would be an effective cause through its form only [in dealing] with a receptive substrate having a position relating to it, for an active agent that works through the commonality of position would be unable to be the agent of anything not having a position. Otherwise, it would be an agent without any commonality of position.

Moreover, whatever would be the cause for a body necessarily would be the cause for [both] of its two parts, namely, '[primal matter' and 'form', first. If a body should be the cause of a body, then the implication is that [the body as 'cause'] would first be the cause of [the other body's] two parts, primal matter and form. However, a body would not be an effective cause [in dealing] either with primal matter or with form, since primal matter has no position before [it is joined with] the form, and the form has no individuation before [it is joined with] primal matter. Neither primal matter nor form, before their union,²² would have [particular] existence, much less position. So, a body would not be an effective cause with [another] body.

4. Nor would the proximate cause of the celestial spheres be something whose action would depend upon a body, [here] I mean MS 147a the 'soul';²³ nor [would it be] a form, nor accidents subsisting in the body, for the reasons we have mentioned,²⁴ likewise, primal matter would not be the proximate cause for the celestial spheres.

²² Reading with the MS [ittiḥād], as this fits the context of a necessary joining together of factors. L and T read [ijād], while MS Garrett-Yahuda 4486 reads [ijād] with a marginal note showing [ittiḥād] as another manuscript reading. MS Garrett 989Ha is unpointed.

²³ MS gl: For the soul's action depends upon the body.

Here, without doubt Isfahani is referring to the human 'rational soul'.

²⁴ MS gl: Namely, being first the cause of its two parts, etc.

b. Therefore, the proximate cause of the celestial spheres would be a substantial being who would be L 290 [of the nature of an] intellect, incorporeal, and independent of [intermediary] instruments, that is, [it would be] the 'Second Intellect', who comes from God Most High as the First [produced celestial intellect after Him]. And this [intellect] would be nothing other than one simple being,²⁵ because [God] Most High is One in every aspect, and so, that which comes first of all from Him would be nothing other than one simple being.

1. It would not be admissible for that one simple being to be an 'accidental quality', because [it] does not precede 'substance' [in existence], and that which emanates first of all from [God] would be a cause of all possible realities other than itself.

2. Nor would it be admissible for that one who comes to be a body, because [this] 'First Produced Being' [from God] would be a cause of all possible realities other than itself, and a body would not be the cause of any substantial beings other than itself, in view of the argument preceding.²⁶

3. Nor would it be admissible for the First Produced Being to be [either] 'primal matter' or 'form,' because if T 138 the First Produced Being should be one of those two, then one of them would be [either] the cause of the other or an absolute intermediary means of [the existence of] the other. But this conclusion is false; otherwise, one implicitly would precede the other in being individuated, and that is not the case.

Further, since 'primal matter' is the receptive [substrate] for 'form', and thus would not be an active cause of the other, and [since] the particularization of the form benefits from primal matter, therefore, primal matter would take precedence over the particularization of the form, and the form's active quality would be dependent upon [the form's] particularization.

Thus, primal matter would not emanate from the form. If it should be otherwise, then the implication would be that the form's particularization would take precedence over primal matter, but [in fact primal matter] has precedence over [the form].

²⁵ The MS by a scribal error adds here: "because [God] Most High is one simple being." This addition is not in L, T, MS Garrett 989Ha, or MS Garrett-Yahuda 4486.

²⁶ MS gl: I.e., the intended meaning here is that what would exist first would be the cause of its two parts.

4. Moreover, it would not be admissible for the First Produced Being [al-Sadir al-Awwal] to be an entity whose action would be dependent upon a body, [by 'entity' here] I mean the [human 'rational' soul], because the soul's action depends upon the [physical] body. For if the First Produced Being should be the [human 'rational' soul], then it would take precedence over the body in its efficacy, since the First Produced Being is the cause of everything other than itself. But it would not be admissible [for the First Produced Being] to take precedence in its efficacy over the body, because no precedence may be given to an entity conditioned²⁷ in its efficacy by an assumption that it would be [merely] a property,²⁸ I mean [of] the body.

Therefore, the First Produced Being would be a '[Celestial] Intellect', because the First Produced Being would be a possible reality. Now a 'possible reality' would be either accident or substance, and 'substance' would be either body or primal matter or form or soul, or intellect. But since MS 147b it would be invalid for the First Produced Being to be anything other than a '[Celestial] Intellect', it is determined that it would be an intellect.

However, these two [points a. & b. in the philosophers' argument]²⁹ are weak.

a.-a. Regarding the first [point in the philosophers' argument establishing the intellect as an incorporeal entity], we do not grant that the void is impossible in itself, because if the void should be impossible in itself, then its nonexistence would be a necessity in itself, but that conclusion is false. Indeed, the void's nonexistence as being necessary in itself would negate what goes along with it, I mean, the existence of the encompassed entity as being necessary due to something other than itself.

An objection could be raised that if 'you' [i.e., Isfahani as disputant] by 'your' statement,—“The void's nonexistence as a necessity in itself would negate what goes along with it, I mean, the [existence of the] encompassed entity as being necessary due to something other than itself”,—should mean that [the nonexistence of the void] denies that [the entity encompassed] is a necessary existent

²⁷ MS gl: [That is], the soul.

²⁸ MS gl: That is, subsequent to.

²⁹ MS gl: That is, the two points made to demonstrate the existence of the intellect.

due to something other than itself, namely, the encompassing entity, then that [meaning] is granted.

But [granting] this does not imply a refutation of the first of the two mutually incompatible propositions,³⁰ because of the admissibility that what was refuted would have become true by a refutation of the second of the two mutually incompatible propositions, that is, that the entity encompassed is necessary through something other than itself, namely, the encompassing entity. Moreover, to refute this [latter] proposition would not be a necessary cause making the entity encompassed unnecessary due to something other than itself. [This is] because of the admissibility that refuting this proposition L 291 would come about by a) refuting [the fact that the entity encompassed] was made necessary by the encompassing entity, not by b) refuting [the fact that the entity encompassed] was made necessary by something other than itself, because denying (a) what is more particular does not imply denying (b) what is more general.

[On the other hand], if by your statement,—“The void’s nonexistence as a necessity in itself would negate what goes along with it, I mean, the [existence of the] encompassed entity as being a necessary existent due to something other than itself”,—you should mean that [the nonexistence of the void] denies that [the entity encompassed] is necessary due to something other than itself in an absolute sense, then we do not grant that there is a mutual incompatibility between the two of them. Indeed, the necessity for [the existence of] the encompassed entity is something other than [the necessity] for the encompassing entity, and [the former] does not logically require the possibility of the void.

If the encompassing entity should not be the cause of the encompassed entity, then the ‘void’ absolutely would not be postulated upon the removal of the encompassed entity; but rather, [the void] would be postulated upon the removal of the ‘encompassed entity’ only from the aspect wherein it would be an ‘encompassed plenum’.³¹ [In other words, the void would be postulated only if] there should be postulated an encompassing entity having no inner contents so that [within it] the [three] dimensions would then be assumed, and

³⁰ MS gl: These two are, [the void’s nonexistence] a) being necessary in itself, and b) being necessary due to something other than itself.

³¹ The MS by a scribal error here reads [mathalan], instead of [malā’un].

these would constitute the 'void'; for indeed, pure nonexistence does not constitute the 'void'.

And if the possibility of the 'void' should not be concomitant to the encompassed entity's necessity due to something other than itself,³² then [the void's] impossibility in itself would not make impossible its necessity due to something other than itself. When we speak of the void being impossible in itself, the meaning is not that the void has a essence that requires its impossibility, but rather, the meaning is that the conception of [the void] requires its impossibility. The void would be inconceivable unless there should be postulated an encompassing entity having no inner contents so that [within that entity] the [three] dimensions would be assumed, and from [this assumption of dimensions, the existence of] the void would be assumed.

The truth of the matter is that it would be admissible that a body should be produced MS 148a by God Most High, because He is an agent of free choice, as we shall demonstrate, and thus it would be admissible that more than one [body] should be produced by Him.³³

b.-a. As for the [philosophers'] second point,³⁴ it is [weak] likewise, as there is no implication that the First Produced Being should be a [Celestial] Intellect³⁵ because [God] is an agent of free choice.

Then [at this point] the doctrine [of the philosophers] continues:

The [First Celestial] Intellect has its

- a) 'existence' from the First Principle, [an existence] that is
- b) an addition to its 'quiddity', [it has its]
- c) 'necessity' from observation of [the First Principle], [its]
- d) 'possibility' from [the First Principle's] essence, [its]
- e) thinking that is focussed upon its First Principle, and its
- f) thinking that is focussed upon itself.

Thus, [the First Celestial Intellect] has within it [these] six aspects: quiddity, possibility, existence, necessity, thinking focussed on its [First] Principle, and thinking focussed on itself. And thereby it becomes a cause of another [second, First Produced, celestial] intel-

³² MS gl: [I.e.], in an absolute sense [mutlaqan].

³³ "...should emanate from Him" is equally possible as a translation here. We follow the tradition of avoiding emanation terminology with respect to God, although this avoidance is not always observable in the texts as a general practice.

³⁴ MS gl: I.e., the 'weakness' of the second point.

³⁵ The MS here adds, "which is the first intellect"; but this addition is not supported by L, T or MS Garrett 989Ha.

lect and soul and a celestial sphere that includes matter, corporeal form and substantial form. And so, from the Second [Celestial] Intellect there emanates accordingly,³⁶ the Third [Celestial] Intellect, with another celestial sphere and another soul, and so it goes on until the Tenth [Celestial] Intellect, that is called the 'Active Intellect'. This one was referred to as

a. 'the Spirit' in the statement of Him the Most High:

"On the day when 'the Spirit' shall stand forth with the angels all in ranks." [Qur'an 78:38] And this Active Intellect is the

b. the 'Effective Cause' in the 'world of the elements', and

c. the '[Generous Being]' who pours out [of its own nature] an abundant provision for the spirits of humankind.³⁷

Now, the 'pen' may be taken as a metaphor for the First [i.e., the Second] Intellect,³⁸ from the statement of [the Prophet] God's blessing and peace be upon him,

"The first thing that God Most High created was the pen, for [God] said, 'Write'. Then [the Prophet] replied, 'What shall I write?' Then [God] said, 'The decree particularizing [the existence] of what has been and what shall be forever.'"

And the 'tablet', being the second created thing, may be taken as a metaphor for the 'throne' [of God], or anything joined to the throne, according to the statement of [the Prophet] upon whom be God's blessing and peace,

"No created thing exists whose recorded form is not kept underneath the Throne."

Baydawi said:

L 291, T 138, MS 148a

The celestial intellects transcend the limitations of matter

[Here is a] corollary. Since the [Celestial] Intellects have been abstracted [from matter], they do not originate in time nor do they terminate in corruption. Their species are limited to being within³⁹

³⁶ MS gl: [L.e.], 'in the philosophers' terminology' [bi-lisān ahl al-hikmah].

³⁷ MS gl: [L.e.], upon their bodies, preparing them for having souls linked to them.

³⁸ That is, it is the 'first' of created things, but in relation to the Creator it would be the 'second produced celestial intellect'.

³⁹ Reading with MS Garrett 989Hb and MS Garrett 283B: "their species are limited within their individual examples" [munḥaṣirat anwā'ihā fī ashkhāṣihā], and

[the number of] their individual examples, [and these examples] contain [all] their stages of completion in actuality. [These facts are] in accordance with earlier discussions on the doctrines of the philosophers to the effect that the substrates receptive L 292 to these entities would be only for those having a material basis. Moreover, [the intellects] have a comprehension of themselves, and of all universals, but they do not perceive particulars, for reasons that will be shown in what is to come.

Isfahani says:

L 292, T 138, MS 148a

The celestial intellects transcend the limitations of matter

Here is a corollary to the existence of a [Celestial] Intellect. Since the [Celestial] Intellects are substantial beings abstracted [from matter], they do not originate in time, nor do they terminate in corruption.⁴⁰ The species of the intellects are limited to being within [the number of] their individual examples,⁴¹ and [these examples] contain all their stages of completion in actuality.

[These facts are] in accordance with earlier discussions on the doctrines of the philosophers to the effect that the substrates receptive to [entities having] these T 139 four factors,—namely, a. temporal origination, b. corruption after having existed, c. multiplicity of individual examples of the species, and d. the nonattainment of the stages of completion in actuality,—would be only for those having a material basis. For the doctrine of the philosophers is as follows:

- (a.) whatever originates temporally is material, and
 - (b.) whatever disintegrates after it has been existent is material,
- and

as quoted in the Isfahani text. L and T read, [. . . anwā'ihā wa-ashkhāṣihā], thus missing the point being made in the texts.

⁴⁰ MS gl: This requires consideration, because it is contradicted by the human 'rational soul', for that is abstracted [from matter] although it originates temporally.

⁴¹ That is, each 'intellect' is a species of its own. Compare in this regard, where Aquinas uses the term 'angel'.

ARISTOTLE: [*On the soul*: Bk I,1 [402b] 1.5]: "We must be careful not to ignore the question whether soul can be defined in a single unambiguous formula, as is the case with animal, or whether we must not give a separate formula for each sort of it, as we do for horse, dog, man, god . . ."

THOMAS AQUINAS: [*Summa theologiae*, a concise translation, ed. by Timothy McDermott, p. 95: (= v. 9, 50, 4) "Since angels are not composed of matter and form, there cannot be more than one angel in any species."

(c.) whatever species has multiple individual examples is material, and

(d.) whatever has 'stages of completion' that go unrealized in actuality is material. MS 148b

Moreover, the intellects are comprehensively aware both of themselves and of universals, [but they] do not perceive particulars,⁴² as we will set forth in Topic 4 in this chapter.

Baydawi said:

L 292, T 139

3. *The souls of the celestial system*

[The philosophers] have presented the following argument [regarding the souls of the celestial system].

a. The [circular rotational] motion-changes of the celestial spheres

1. are not in keeping with nature; because, if it should be otherwise, then [it would be a case where] the naturally sought 'goal' [of the spheres' circular rotating motion-change] would be [also] the naturally abandoned 'starting point' [of their motion].

2. nor are they under [some unnatural] constraint, because constraint would be applied only as a contrast with natural activity, and it would be in agreement with the agent of constraint in regard to direction, speed, or slowness.

b. Therefore, [the motion-changes of the spheres] are intentionally willed, and so they have perceptive agents causing the [rotational] motion-change who are ruled either

1. [by their] imagination, or

2. [by their] intellect. The former alternative would be invalid, because motion-changes that are perpetual and continuous in a single pattern would not be the consequence of mere imagination. So then [the agents moving the spheres] are intelligent; and everything that is intelligent is incorporeal, as we shall set forth.

c. Therefore, it is established that the agents causing the [circular rotational] motion-changes of the celestial spheres are substantial beings that are both incorporeal and intelligent.⁴³

⁴² MS gl: Because the perception of a particular is only by means of a corporeal instrument, while the intellects are incorporeal.

⁴³ The argument that "the philosophers have presented" (points a. and b. primarily) seems to be an anomaly, and nothing supporting it was found in a survey

However, [these causal agents] are not the principles proximate to the [action of] causing the motion-changes of the spheres. These particular motion-changes that spring from particular willing intentions that [in turn] derive from particular [acts of] perception do not belong to incorporeal substantial beings. But rather, [they belong] among the corporeal powers that flow from [those incorporeal substantial beings],—resembling the living animate power that flows from our [rational] souls upon our [human] bodies,—and these [corporeal] powers are called ‘particular souls’ [in the celestial system].⁴³

The consensus [among the philosophers] is that [the celestial spheres] are devoid of both external and internal senses, as well as of desire and anger, since the purpose of the [latter two factors] is to obtain some benefit or ward off some injury, both of these [purposes] being impossible [to conceive in the celestial system].

of Ibn Sina's *Isharat* vol. 2 on natural science. Two brief quotations may help to indicate his view.

“A body while moving has a directional force [mayl] by which it moves, and by which it senses [its] limits of possibility.” (—Op. cit., 2:208)

“One group of parts in a body with limited directions of view is not preferable either in its position or in its frontage outlook to any other [position]; so no factor is more necessary than any other, rather, [every factor] has a cause. Transition from a particular status quo is admissible, so a directional force suitable to the natural bearings [of the situation] is necessary, this being in accord with whatever exchange of position is admissible in the situation without the permission of the placing agent; and that position placement would be in circularity, so there would be a ‘rotational directional force.’” (—Op. cit., 2:230)

Isfahani, commenting on Baydawi's “Corollaries to the existence of the Celestial Spheres: motion in circular rotation” (see above at L 264 ff.) had written:

“Therefore, in [the spheres] there is in actuality a circular directional force that is in accordance with nature. So the spheres are moving in a gradual circular motion-change.” (A gloss from the MS is given in a footnote here:) “That is due to the necessary occurrence of the effect (the circular motion) in the presence of an [effective] cause (the directional force to circularity).”

⁴³ The beings here called ‘particular souls’ appear to correspond to those beings in Topic 1 [Classes . . . b., 2., b), 2).] who govern ‘particular individuals’ and are themselves called ‘Souls of the Earth’. It seems admissible, then, to regard the beings, their rank and their name ‘Souls of the Earth’, as identical to the ‘particular souls’.

Regarding both the ranking and the naming of the various ‘incorporeal substantial beings’, Isfahani gives a clear hint that the divergences noted often come from the divergence between opinions of the philosophers and opinions of the scholars of religion.

Isfahani says:

L 292, T 139, MS 148b

3. *The souls of the celestial system*

The philosophers have presented this argument [regarding the souls of the celestial spheres]:

a. The circular rotational motion-changes of the celestial spheres are not in keeping with nature, because if they should be in keeping with nature, then the naturally sought goal [of their rotational motion-changes] would be also the naturally abandoned starting point [of their rotational motion-changes]. The conclusion is false, as it would be impossible for the naturally sought goal to be the naturally abandoned starting point. In explanation of the logic [they have] used here, it is that with every point toward which the circular rotational motion directs itself, there is an abandonment of the point that was sought⁴⁵ that [simultaneously] constitutes a heading toward that direction. So, if that should be natural, then the implication is that a [sphere] rotating in a single [continuous] motion-change by nature would be seeking for that which by nature it was leaving behind. And in [this] single [continuous] motion-change [the sphere] naturally would be seeking to reach a certain position in its path while [at the same time] naturally it would be abandoning it and fleeing from it.

Let no one ask why it would not be admissible that the natural goal be the motion itself L 293 and thus the motion itself always would be a naturally sought goal, not something that it would be fleeing from. Our position is that the [rotational] motion-change [of the celestial spheres] is not a stage of completion in itself; but rather, [the motion-change] is always being sought⁴⁶ because of something other than itself [as the stage of completion].

A moving entity that is stable in itself would not require [as a need] for itself anything that would not have stability within itself. This is because if a given entity should require something [as a need] for itself [then that entity] would continue [only] as long as that unstable thing would continue. And if something should not have stability within itself, then it would not be possible to continue while

⁴⁵ The MS alone of sources used reads here, [tark al-tawajjuh 'anhu]; the others reading [tawajjuh ilayhi] as in the contrasted directions 'headed to'.

⁴⁶ The passive voice is coded in the MS.

depending upon the continuance of an entity not having stability. An inherently stable moving entity does not require the [rotational] motion-change for itself, but only for some other object that is attained by means of [the motion-change], and what the moving entity requires for itself is that object, not [merely] the motion. Thus, the [rotational] motion-change would not be a stage of completion that would be sought after for itself. Also, the motion-change⁴⁷ on its own behalf requires advancement toward the other [object], so [the motion's] goal would be that other [object].

b. Furthermore, [the philosophers argue that] it would not be admissible for the [circular rotational] motion-change to be under [unnatural] constraint. [This is] because

1. constraint would be [applied] only as a contrast with natural activity, so where there would be no natural activity there would be no [need for] constraint; and [it is] because

2. constraint would be in agreement with the agent of constraint only in regard to direction, speed, or slowness. Such is not the case here, for constraint would be conceivable only for the entity encompassed in relation to the encompassing entity. But the motion-change of the encompassed entity is in contrast to the motion-change of the encompassing entity in direction, speed, and slowness. MS 149a

Therefore, the circular rotational motion-changes of the celestial spheres are intentionally willed, as motion-change⁴⁸ is limited within [the categories of] naturalness, constraint, and being intentionally willed, and as the former two have been shown to be invalid here, the third is indicated. Thus, the celestial spheres have perceptive agents causing their [circular rotational] motion-change, as you have learned that intentionally willed motion-change issues only from a power that is perceptive.

These perceptive agents that cause the [circular rotational] motion-change then would be ruled either by imagination, or by intellect. [This is] because if the perceiving agent should have only a perception of very particular matters, then it would be [ruled by] imagination, while if its perception should be of what is universal, then it would be [ruled by] intelligence. The former [alternative] would be invalid, because motion-change that is produced from imagina-

⁴⁷ So in L and T; the MS has "it", with "motion" as a gloss.

⁴⁸ MS gl: i.e., motion-change in itself [al-ḥarakah al-dhātīyah].

tion, that is, from the perception of what is merely sensory, would have for its activating impulse either attraction to something favorable or avoidance of something repulsive. [The impulse] of attraction to the favorable would be an impulse of sensate appetite, while [the impulse] of avoidance of the repulsive would be an impulse of angry rejection.⁴⁹ Particular and sensate intentions do not come from these two [impulses], nor is it admissible that they should be due to an impulse of either sensate appetite or angry rejection. [This is] because sensate appetite and angry rejection are specific properties of a [material] body that is passively acted upon and that can change from a favorable to an unfavorable state, and vice versa.

The celestial spheres cannot be torn, and they neither expand nor contract, they neither work loose nor do they become rigid, they are not generated instantly nor do they terminate in corruption, and they do not change,⁵⁰ [all these facts being] in view of the preceding discussions. Therefore, the heavenly bodies would not alter from a favorable condition to some different condition. They have [impulses] neither of sensate appetite nor of angry rejection, so their motion-changes are not driven by sensate appetite or by angry rejection, nor is their purpose a matter of sensation or of imagination, so it is determined that their purpose is a matter of intelligence.

c. Thus the perceiving agents, who cause the spheres' [rotational] motion-change, are not ruled by imagination, but are beings of intelligence.

Now, these intelligent [beings] causing motion-change are not the immediate principles that cause this [rotational] motion-change; that is, the intelligent beings causing motion-change are not [themselves] directly the agents that cause this [rotational] motion-change. T 140 Indeed, the [rotational] motion-changes of the celestial spheres are particular, renewed, and required. And motion-changes L 294 that are particular, renewed⁵¹ and required spring from willing intentions that are particular which [in turn] derive from particular perceptions, and they do not belong to intelligent beings that are incorporeally abstracted from all things material. Rather, [these 'particular willing intentions'] belong to the corporeal powers flowing abundantly

⁴⁹ L and T: [li-jadhb] and [li-daf']; MS and MS Garrett 989Ha: [yajdhib] and [yadfa'].

⁵⁰ MS gl: [Lc.,] from state to state.

⁵¹ "renewed" is omitted by the MS.

upon the bodies of the celestial spheres from the incorporeal intelligent agents of motion-change,—resembling MS 149b the corporeal animate powers⁵² flowing from our [rational] souls upon our [human] bodies,—and these corporeal powers flowing upon the bodies of the celestial spheres are called ‘particular souls’ that are imprinted⁵³ within the material natures of the spheres. Further, these intelligent agents of motion-change, who are incorporeal substantial beings, are ‘incorporeal souls’ [in the celestial system] who can perceive universals and [therefore] are intelligent beings.

The consensus among philosophers is that the celestial spheres are devoid of both external and internal senses, as well as [the impulses of] sensate appetite and angry rejection. Because the purposes [of the latter two impulses] are to seek benefit and ward off harm, they are impossible [to conceive] in the celestial system, since they are properties specific to a material body that is passively acted upon and they can change from a favorable condition to an unfavorable condition.

Baydawi said:

L 294, T 140

4. *The incorporeal nature of human rational souls*

This doctrine is held [both] by the philosophers and by the Defender of Islam [Abu Hamid Muhammad al-Ghazali] who is one of our school. Evidence for [this doctrine] is provided both by reason and by tradition.⁵⁴

⁵² The MS omits “living” from the text, but inserts it as a gloss, “Le., the living souls.” This appears somewhat out of context, so is perhaps a hurried scribal emendation.

⁵³ MS gl: Le., centered upon [markūzah].

⁵⁴ See Professor Calverley’s authoritative survey and interpretative article, “Nafs” in both editions of the *En-I*, wherein Section VIII is his summary of this Chapter 2 [of Book 1, Section 3] in the Baydawi text and Isfahani commentary. We quote briefly from his article:

SECTION VI: “Aristotle’s principle of the incorporeal character of spirit had nevertheless found a permanent place in Muslim doctrine through the influence of Islam’s greatest theologian, al-Ghazali. . . . [Al-Ghazali] devotes the second section of [his] *Al-Risala al-laduniyya* (Cairo 1327, 7–14) to explain the words [nafs], [rūh] and [qalb] (heart), which are names for his simple substance that is the seat of the intellectual processes.”

SECTION VII: “This position of al-Ghazali’s was that of the theistic philosophers in general, as well as some of the Mu’tazilah and the Shi’ah, but it has never

a. *Reason provides evidence* [of the rational soul's incorporeal nature] from several aspects.

The Rational soul's knowledge about God is not divisible as matter

1. The first [aspect in which reason supports the doctrine of the rational soul's incorporeal nature] is that [real] knowledge about God and about all other simple noncompounded beings is not divisible [as if it were material in nature]. If the case should be otherwise, then

a) if a part of [this knowledge] should be [real] knowledge of [God], then the part would be equal to the whole of [the knowledge], but this would be an impossibility; while

b) if [the part] should not be [real] knowledge of [God], and if the sum [of all the parts] should not imply anything additional, then likewise [the result would be an impossibility]; [but]

c) if [the sum total of all the parts] should imply [something additional], then the same discussion [as in option a)] would be repeated about [option c)], and the argument implicitly would be an infinite series.

So the substrate [of this knowledge] would not be [materially] divisible. But since every body and corporeal entity is divisible, therefore, the substrate for [these areas of] knowledge would be neither a body nor a corporeal entity.

However, this [reasoning] is contradicted by [the fact that] the point and the unit of singularity [are indivisible noncompounded bodies], and [by the fact that] a body is divisible into an equal amount of corporeal matter.

dominated Islam. The great analytical philosopher and theologian, Fakhr al-Din al-Razi, could not bring himself to accept it."

SECTION IX: "The dominant Muslim doctrine concerning the origin, nature and future of [al-rūh] and [al-nafs] is most fully given in the *Kitaḥ al-Ruh* of Ibn Qayyim al-Jawziyah (Hayderabad 1324). Of his 21 chapters, Ibn Qayyim devotes the 19th to the problem of the specific nature of the [nafs] (pp. 279-342). He denies F.D. Razi's statement that the Mutakallimun consider man to be simply the sensible body, and says all intelligent people hold man to be both body and spirit. The [rūh] is identified with the [nafs], and is itself a body, different in quiddity [al-māhīyah] from this sensible body, of the nature of light, high, light in weight, living, moving, interpenetrating the bodily members as water in the rose. It is created, but everlasting . . . He represents traditional Islam."

Isfahani says:

L 294, T 140, MS 149b

4. *The incorporeal nature of human rational souls*

This doctrine is held both by the philosophers and by the Defender of Islam, [Abu Hamid Muhammad] al-Ghazali, who is one of our own colleagues.⁵⁵ Evidence for the incorporeal nature of human [rational] souls, namely, that they are neither a body nor corporeal [matter], is provided both by reason and by tradition.

a. *Reason provides evidence* [of the rational soul's incorporeal nature] from several aspects.

The Rational soul's knowledge about God is not divisible as matter

1. The first [aspect in which reason supports the doctrine of the rational soul's incorporeal nature] is that [real] knowledge about God Most High—and about other noncompounded beings, as are the point, the unit of singularity, and the simple elements from which compound bodies are composed,—is not divisible [as if it were material in nature]. [This is] because

a) if [the total] knowledge about a simple being should be divided, and if the part of knowledge about the simple being should be [specifically] the knowledge about that particular simple being, then the 'part' would be equal to the 'totality' of it,⁵⁶ and one [quantity of] knowledge would [then] be two [quantities of] knowledge, which would be an impossibility. While

b) if the part of knowledge about the simple being should not be [specifically] the knowledge about [that particular simple being], and if the total quantity of the parts of the knowledge that are not [specifically] the knowledge about [that particular simple being] should not indicate that there was something additional in those parts, then the result would be the same; that is, it would be an impossibility because the implication then would be that the [specific] knowledge about that particular object of knowledge would not at all be knowledge of it. But this would be contrary to the assumption [i.e., that it was in fact knowledge of the object].

c) But if the total of the parts of the knowledge that are

⁵⁵ MS gl: I.e., one of the Asha'irah who follow the philosophers in this topic.

⁵⁶ MS gl: [I.e.] in its complete reality.

not [specific] knowledge of [that particular simple being] should indicate that there was something additional to those parts, and if that addition should be divided,⁵⁷ then the division of it again requires that we [repeat the discussion, and] say that

(a) if part of that addition should be [specific] knowledge of [the particular simple being], then it would imply that the part was equal to the whole, and the one [quantity of] knowledge would become two [quantities of] knowledge [which of course would be impossible]. L 295 While

(b) if part of that addition MS 150a should not be [specific] knowledge of [the particular simple being], and if the totality of the parts of that addition does not indicate that there is something additional to the parts, then it would likewise be an impossibility, because it would imply that the knowledge about that object of knowledge is not at all knowledge of it. And this would be contrary to the assumption [i.e., that it was indeed knowledge].

(c) But if the case should indicate that there was something additional [to those parts], then the discussion would be transferred to the additional factor, and the argument then would be either an infinite series or else it would terminate in some indivisible factor.

Thus, it has been established that the knowledge about a simple noncompounded being would be indivisible, and so the substrate⁵⁸ of that knowledge would be indivisible; otherwise, it is implicit that that indivisible knowledge would be divisible, for the divisibility of the substrate logically requires the divisibility of what is inherent [within it]. So it has been established that the substrate of the knowledge would be indivisible;⁵⁹ and [since] every body and corporeal entity is divisible,⁶⁰ therefore the substrate of the knowledge would be neither a body nor a corporeal entity.⁶¹

An objection has been raised against this [reasoning], in that it is not granted that if the substrate of the indivisible knowledge about the simple being should be a body or corporeal [being], then from [this substrate's] divisibility there could be no inference that the indivisible knowledge would be divided.

⁵⁷ The MS alone adds here, 'knowledge'.

⁵⁸ MS gl: i.e., the soul [nafs].

⁵⁹ MS gl: [This being the] minor premise.

⁶⁰ MS glosses: 1. [This being the] major premise; 2. This is the second figure.

⁶¹ MS glosses: 1. The conclusion [natūjah]; 2. What was claimed [al-mudda'a].

[Baydawi's] position is that the divisibility of the substrate requires the divisibility of what is inherent [within it].⁶²

Our [Isfahani] position is that we do not grant this, for [the reasoning] is contradicted by the [fact of the] 'point', for the substrate of the 'point' would be the 'line' which is divisible. But the divisibility of the line does not imply that the point that is inhering within it would be divisible. And it is likewise with the 'unit of singularity', the divisibility of its substrate would not imply [the unit's] divisibility.

And if it should be granted that the divisibility of the substrate implies the divisibility of the [inherent] knowledge, why would you say, then, that the divisibility of the knowledge would not be admissible?

[Baydawi's] position is that if the [quantity of] knowledge should be divisible then part of it either would be knowledge of a particular given thing, or it would not be.

Our [Isfahani's] position is that we would prefer [to say] that part of the knowledge would be knowledge of the particular thing.

[Baydawi] says that the implication is that the part [of the knowledge] would be equal to the whole of [the knowledge].

We [Isfahani] hold that the implication is that the part would be equal to the whole of [the knowledge, either] a) in quiddity, or b) in all the accidental qualities. The second [alternative here] would be excluded, unless they should set up a proof that if the part of the knowledge should be linked to everything that the whole of the knowledge is linked to, then it would be impossible for [the part] to differ from [the whole] in any of the accidental qualities. But they certainly have not done that until the present time.

The first [alternative here] would be granted as there is nothing to hinder it. Indeed, the body of a simple entity, such as water or any other of the simple entities, is divisible into [portions of] what is all the same in quiddity.

An objection could be raised that the divisibility of the substrate would necessitate the divisibility of the inherent only when the inherent is there, because it is that particular substrate, not because of a linkage with some other natural context. But if the linkage with MS 150b the inherent should be because of a linkage with some other natural context, then the divisibility of the substrate would not neces-

⁶² Isfahani infers Baydawi's statement on this point from other arguments, as Baydawi himself does not make the statement here.

sitate the divisibility of the inherent. Knowledge is inherent within a scholar because he is that particular scholar, not because of a linkage with some other natural context. T 141 So, from the scholar's divisibility may be inferred the divisibility of the inherent.

Regarding a 'point', it is inherent within a line, not because it is a line but only because it is a limited [line]. So, the divisibility of the line does not necessitate the divisibility of the 'point', as the point's inherence within [the line] is because [the line] is limited, not because of [the line's] essence.

Regarding the 'unit of singularity', it is a mental concept. It is not something externally existent, but rather, it is an entity that the intellect considers to be L 296 within a thing because [that thing] is indivisible.

As for a [quantity of] knowledge being divisible into parts that would be equal to the [quantity of] knowledge, [this fact] does not negate the hypothesis [for which we are arguing].⁶³ That is because it is inevitable that within the divisible [quantity of] knowledge there should be a part that is indivisible in fact. Otherwise, knowledge would be composed of constitutive details⁶⁴ having no limits in actuality, since constitutive elements necessarily occur when that which is composed of them occurs in actuality. But that would be an impossibility. And with the necessity of this impossibility the logical goal has been attained.

This is because indeed, every plurality, equally whether it is limited or unlimited, has within it what in fact is a single unit in actuality, because a plurality would not become an actuality without single units. So inevitably there would be an actual single unit among the multiple parts of a quantity of knowledge; and that actual single unit, from the standpoint of being an actual single unit, would not be divisible. Thus, the [single unit's] substrate, being itself intelligently aware of [the single unit],—[and by 'substrate' here] I mean the 'rational soul',—would not be divisible. If the case should be otherwise, then it would imply the divisibility of an actual single unit, which is indivisible, because the divisibility of a substrate would necessitate the divisibility of its inherent.

⁶³ MS gl: I.e., the incorporeal [literally, uncomplicated] nature of the soul [basāṭat al-nafs].

⁶⁴ L, T, and MS Garrett 989Ha agree on this wording: [la-kāna al-ʿilm murakkaḥan min muqawwimāt]. The MS has "knowledge would have elements" [la-kāna lil-ʿilm muqawwimāt].

Baydawi said:

L 296, T 141

Rational souls can perceive contraries simultaneously

2. The second [aspect in which reason supports the doctrine of the soul's incorporeal nature] is that an intelligent person can perceive blackness and whiteness simultaneously. Therefore, if [the intelligent person] should be [merely] a body or a corporeal being, the joining together of blackness and whiteness in one body would be implicit. This would be impossible, in that the form of blackness and [the form] of whiteness, being two mental [entities], have no opposition between them, but there would be an inconsistency here because of the conception of this one as blackness and of that one as whiteness.

Isfahani says:

L 296, T 141, MS 150b

Rational souls can perceive contraries simultaneously

2. The second aspect that supports the doctrine of the rational soul's incorporeal nature is that an intelligent person⁶⁵ may perceive blackness and whiteness simultaneously. Indeed, the person who knows that blackness and whiteness are opposites inevitably would be the same one who has knowledge of both of them. And by 'knowledge' nothing is meant other than the occurrence of the form of the known object in the knower. So, for the person who knows that the two are opposites the quiddity of both of them inevitably will occur within him.

If an intelligent person, who is the substrate of the knowledge of blackness and whiteness, should be [merely] a body or a corporeal being, then the joining together of these two [colors] in one body would be implicit, and this [situation] would be impossible because the joining together of two opposites⁶⁶ is impossible.

[However], such a case would be impossible [also] by the fact that the 'form' of [the] blackness and the 'form' of [the] whiteness are both intellectual entities⁶⁷ MS 151a and there is no opposition between them, as the opposition would be between the black-

⁶⁵ MS gl: I.e., the soul.

⁶⁶ MS gl: [I.e.], in one body.

⁶⁷ MS gl: I.e., both occur in the [rational] soul [al-nafs].

ness itself and the whiteness itself.⁶⁸ The intellectual form [of the blackness or whiteness] would not be the same as when a being would have the form [of blackness or whiteness] among its concomitants,⁶⁹ but rather, it would differ from [the latter] in many of these concomitants. The argument from this aspect also has an inconsistency in the conception of this [particular] blackness and this [particular] whiteness, because the agent perceiving them both, as they are both particulars, would be a body or some corporeal being, aside from the [rational] soul, although no opposition exists between [body and rational soul]. But then an objection could be raised in that the agent perceiving this [particular] blackness and this [particular] whiteness would be the [rational] soul,⁷⁰ not the body or the corporeal being, even if both of these [colors] should be painted upon⁷¹ the body or the corporeal being.

Baydawi said:

L 296, T 141

Rational souls conceived as material bodies could not think freely

3. The third aspect [in which reason supports the doctrine] that the rational soul is incorporeal is that if a rational soul should be [a material member of] a body, or [should] inhere within [a body member], then the implication would be that [that body member either] would be always actively thinking, or⁷² it would not be always actively thinking. [This is] because, if the form inhering within the material substance of a particular body member should be sufficient to guarantee [that body member's] thinking, then it would be thinking always; but if it should not be sufficient to guarantee its thinking, then its thinking always would be impossible, because of the impossibility for two mutually similar forms to meet together in one

⁶⁸ MS gl: That are external.

⁶⁹ If that should not be true, then it would not be admissible for [black and white] to have subsistence immaterially either, as two opposites may not join together in a single substrate whether materially or immaterially.

⁷⁰ According to the philosopher Ibn Sina, but [this perception] would be by means of instrumental agents.

⁷¹ L & T: [munaqqashayn]; the MS: [muntaqashayn]; MS Garrett 989Ha: [man-qūshayn].

⁷² L and T both omit the 'alif' from the conjunction, letting it mistakenly read [wa] "and" instead of [aw] "or." MS Garrett 283B and MS Garrett 989Hb both correctly give the word as "or."

material substrate. But the conclusion is false, so the premise is likewise. L 297

This reasoning is weak because the intelligible form⁷³ would be an accidental quality, so it would not be the equivalent of a substance. Moreover, [the intelligible form] would inhere within the power that is inherent within the [body] member, while an external form would inhere within [the body's] material substrate, and there is nothing to indicate that such a meeting [of the two forms] would be impossible.

Isfahani says:

L 297, T 141, MS 151a

Rational souls conceived as material bodies could not think freely

3. The third [aspect in which reason supports the doctrine that the rational soul is incorporeal] is that if a rational being⁷⁴ should be a [particular member of a] body, such as the heart,⁷⁵ or the brain, or something else, or should be inherent within [such] a body [member], in such a way as to be a corporeal power inhering within a [particular] body member, such as the heart or brain, or something else, then the implication would be either that the rational soul, as the body member mentioned, would be thinking always,⁷⁶ or that it would not be thinking [always]. But this conclusion would be false because the thinking of the rational soul, as that body member, would be interrupted, that is, at some times.⁷⁷ An explanation of the logic used here is that the rational soul's thinking in that⁷⁸ particular body member would exist only in close association between [the body member's] form and [the rational soul]. Thus, inevitably either the form inherent within the matter of that particular body member would be sufficient for the [rational soul's] thinking activ-

⁷³ Baydawi uses the term "intellectual form" [al-ṣūrah al-'aqlīyah], which Isfahani changes to "intelligible form" [al-ṣūrah al-ma'qūlah]. Therefore, we are translating Baydawi's reference as "intelligible form", to agree with Isfahani's usage.

⁷⁴ MS gl: I.e., the soul.

⁷⁵ MS gl: As is the doctrine of some scholars.

⁷⁶ MS gl: That is, [the rational soul] itself or its substrate.

⁷⁷ MS glosses: 1. For instance, at the time of sleep; 2. I.e., it provides it with active thinking at some times and neglects it at other times. Thus, the falsity of the premise is established, namely, that the intelligent being [i.e., the soul] [al-'āqil] would be [either] a body or would be corporeal [in nature].

⁷⁸ The text in L [at this point only] appears to read, [al-m-l-k al-'uḍw]; T and the MS read, [li-dhālika al-'uḍw].

ity, or it would not be. If [the body member's form] should be sufficient, then the implication would be that [the rational soul] always would be thinking in [the body member],⁷⁹ because the body member's form always would be associated closely with [the rational soul], and the hypothesis is that the form would be sufficient for [the rational soul] to think in [the body member].

But if [the body member's form] should not be sufficient [for the rational soul] to think in [the body member], then [the implication would be that] it always would be impossible for [the rational soul] to think in [the body member]. [This is] because, if that particular body member's form should not be sufficient for the [rational soul] to think in [the body member], then [the body member's] intellectual activity would be due to the occurrence⁸⁰ of another 'form' similar to that particular body member's 'form'. However, the occurrence of another form similar to [the first form] would be impossible. [This is] because if another form, similar to the [the body member's first] form, should occur in the rational soul, then that [second] form would be closely associated with the substrate of the rational soul, since the close associate of the rational soul [also] would be the close associate of its substrate. But it would be impossible for another [second] form similar to [the body member's first] form to be closely associated with the [same] substrate, because of the impossibility for two mutually similar forms to meet together MS 151b in a single material substance.⁸¹

Our author [Baydawi] says that this reasoning is weak, because we would not grant that if that particular body member's form should not be sufficient for the thinking [of the rational soul], then the implication would be that the thinking would come through another [second] form similar to the [first] form of that particular body member. That would be implied only if the intelligible form of [the body member] should be equivalent to [the body member] in all its quiddity.

This would be an impossibility, as the 'intelligible form' is an 'accidental quality' that is not sensately perceptible and is inherent within

⁷⁹ L and T read, [lazima ta'aqquluhu dā'iman]; the MS reads, [ta'aqquluhu lahu dā'iman]. The MS generally provides coded indications of the antecedents of the many pronominal suffixes used.

⁸⁰ MS gl: [I.e.], in the soul.

⁸¹ MS gl: So it would be impossible to think in [the second form], because what depends upon an impossibility would also be an impossibility.

a substrate⁸² that is not sensately perceptible, while the ‘external form’ of the body member T 142 is substance that is externally existent and sensately perceptible. Thus, the ‘accidental quality’ [i.e., the intelligible form of the body member] would not be equivalent to the substance [i.e., of the body member]. Likewise, the ‘intelligible form’ would be inherent within the rational power inhering⁸³ within the body member, while the ‘external form’ would be inherent within the material substance of the body member, and there is nothing to indicate that such a meeting [of the two forms] would be impossible.

An objection might be raised to the effect that the ‘quiddity’ of a thing is [merely] a way of expressing what occurs within the intellect on account of that thing [but] apart from [the thing’s] own properties that are external to [the intellect].⁸⁴ There is no doubt at all that the ‘intelligible form’ of the ‘thing’ [i.e., in this context, the particular body member] would be equivalent to the quiddity of the ‘thing’, and even identical with it.⁸⁵ Indeed, as a way of expressing [both] the ‘abstraction’ of the ‘intelligible form’ from the mental properties, and the ‘abstraction’ of the ‘external form’ from the external properties, [the intelligible form] would be ‘identical’ with [the ‘quiddity’ of the particular body member]. While, as a way of expressing the ‘close association’ of [both] the ‘intelligible form’ with its mental properties and the ‘external form’ with its external properties, L 298 [the intelligible form] would be ‘equivalent’ to [the quiddity of the particular body member] in the totality of its quiddity. And even though the two [forms] differ in their accidental qualities, still the difference in accidental qualities does not negate their equivalence in the totality of the quiddity. Moreover, the ‘intelligible form’, in consideration of the fact that it is a ‘form’ by which the ‘thing’ [i.e., the particular body member] is comprehended, is not an ‘accidental quality’.⁸⁶

⁸² MS gl: I.e., the soul.

⁸³ MS gl: I.e., it is self-subsistent [qā'im bi-dhātihī].

⁸⁴ The MS codes ‘the thing’ as antecedent to the final relative pronoun, ‘it’. However, the context suggests rather that “the thing’s own properties” are logically external to the intellect.

⁸⁵ MS gl: I.e., and the ‘intelligible form’ of the thing even [ba] constitutes the very ‘quid-essence’ of the thing.

⁸⁶ L 298 gl [also partially in MS]: Because it can be affirmed of it that if it should exist among the individual essences (MS: externally) then it would not be in a subject substrate [mawḍūʿ], and so would not be an accidental quality.

Moreover, the form inhering within the rational soul must inhere within [the rational soul's] substrate, if the rational soul should be corporeal [in nature]. That is so because, if the rational soul should be corporeal [in nature], then it would be capable of action because it would share in the substrate, since every corporeal active agent⁶⁷ is active only because it has a commonality with the body. Thus, if the form inhering within the rational soul should not inhere [also] in [the rational soul's] substrate, then [the rational soul's] activity would not be through sharing in the substrate, and so it would not be corporeal [in nature]. But this would be contrary to the [objec-tor's] hypothesis.

Baydawi said:

L 298, T 142

Rational souls can comprehend intelligibles without limit

4. The fourth [aspect in which reason supports the doctrine of the incorporeal nature of the rational soul] is that the intellectual power [of rational souls] is able to comprehend intelligibles without limit, because it is able to perceive numbers and shapes without limit. Not one of the corporeal powers is able to do that, as we shall discuss in the section on the Resurrection Assembly [in Book 3].

An objection has been raised regarding the absence of any limit upon the intelligibles to the effect that if by this you should mean that [the rational soul's] intellectual [power] would not terminate at [only] one intelligible without having the power to comprehend another intelligible, then the 'power of imagination' is able to do the same. But if by this you should mean that [the rational soul's intellectual power] would be able to call to mind [all] intelligibles without limit at once, then that would be impossible.

Isfahani says:

L 298, T 142, MS 152a

Rational souls can comprehend intelligibles without limit

4. The fourth [aspect in which reason supports the doctrine of the incorporeal nature of the rational soul] is that the intellectual

⁶⁷ Reading with L, T, MS Garrett 989Ha and MS Garrett-Yahuda 4486 [kull fā'il jismānī innama yakūn fā'ilan]; the MS reads: [kull 'āqil jismānī innamā yakūn 'āqilan].

power [of rational souls] is able to comprehend intelligibles without limit, because [this intellectual power] is able to perceive numbers and shapes that have no limit, but not one of the corporeal powers is able to do that. That is, corporeal powers cannot perceive anything that has no limit, for reasons we shall set forth in the section on the Resurrection Assembly, to the effect that corporeal powers are unable to comprehend the limitless causation of motion-changes.⁸⁸

An objection has been raised to this point to the effect that it would not be granted that the intellectual power [of rational souls] has the power of real action [i.e., externally] at all, much less that it would be said to be capable of actions without limit. [This is] because 'thinking' is a term for the soul's receptivity to an intelligible form, and this is an experience of passivity, not of direct activity. Moreover, experiences of passivity without limit would be admissible for corporeal [natures], as in the case of the imprinted 'souls' of the celestial spheres⁸⁹ and the primal matter of the [simple] elemental bodies.

And if we should grant [the rational soul's intellectual power] a capability for [external] action, then what do you [people] mean by your statement that the [rational soul's] intellectual power is able to comprehend intelligibles without limit? If by this [statement] you should mean that the intellectual [power of the rational soul] does not terminate at [merely one] intelligible without the ability to comprehend another intelligible, then [the answer would be that] the corporeal powers likewise are capable of that; for indeed, the 'power of imagination' does not terminate its conceiving of shapes at a certain limit without the ability to conceive any other shapes beyond that.

And if by this [statement] you should mean that the [rational soul's] intellectual power calls to mind [all] intelligibles without limit at once, then this would be impossible. Indeed, we discover for ourselves how hard it is for us to focus our mind on many intelligibles at once.

⁸⁸ L gl: Thus, it would be established that intellectual powers are something other than corporeal powers, by Figure 2 of the syllogism.

⁸⁹ MS gl: [i.e., an imprint] on the material substances [mawādd] of the celestial spheres.

Baydawi said:

L 298, T 142

Rational souls conceived as material bodies could not perceive universals

5. The fifth [aspect in which reason supports the doctrine of the incorporeal nature of the rational soul] is that if perceptions of universals should inhere within a [material] body, then they would become particularized by qualities of size, shape and position in conformity with their substrate, L 299 and thus they would not be incorporeal universal 'forms'.

An objection has been raised on this point [in] that the universality of a form is⁹⁰ its applicability to each one of the individuals [in a group], if an [individual's] quiddity is taken as being abstracted from its external properties and its abstraction [means] that it would be stripped of external accidents, and [if] nothing that should become accidental to it on account of its substrate would impair [the form's universality]. If it should be otherwise, then the commonality of logical necessity would require us to say that the perception of a universal would also become inherent within a particular soul, but that the particularity of the substrate would not imply the particularity of its inherent.

Isfahani says:

L 299, T 142, MS 152a

Rational souls conceived as material bodies could not perceive universals

5. The fifth aspect [in which reason supports the doctrine of the incorporeal nature of the rational soul] is that if perceptions of universals should inhere within a [material] body, then they would become particularized by qualities of size, shape, position and place in conformity with their substrate. But this conclusion is false, so the premise is likewise.

As for the logical necessity used here, it is that every [material] body is particularized by qualities of a definite size, a definite shape, a definite position, and a definite place. Thus, if [any] perceptions of universals should inhere within a [given material] body, then [the perceptions] would become particularized according to that same size, shape, position, and place, because the particularized substrate⁹¹

⁹⁰ L gl: 'A way of expressing' [this phrase is supplied as clarification in one of L's source manuscripts].

⁹¹ MS gl: Namely, the [material] body.

with its definite size, definite shape, definite position, MS 152b and definite place, necessarily brings about the same particularization of the inherent within it.

Now, regarding the falsity of this conclusion, it is because anything that has been particularized by qualities of a definite size, a definite shape, a definite position, and a definite place would not be in conformity with something that was not like that, nor would there be a commonality among many examples, and thus there would be no abstracted and universal forms.⁹²

There is an objection to this aspect in that the 'universality of the form'⁹³ consists in its applicability to each individual [in a group], if [the individual's] quiddity is taken T 143 as being [immaterial and] abstracted from its external properties, and the abstraction of its quiddity [means] it is stripped of its external accidents, and [if the form's] universality is not impaired by anything made accidental to it because of the substrate in the way of an extension, a shape, or a position.

This [universality of the form] is applied to the individual [quiddity] if it is taken as abstracted [and immaterial], because if anything that had become an accidental quality on account of the substrate should impair [the form's] universality, then by the commonality of logical necessity we would be required to say that the perception of a universal that inheres in a particular [rational] soul also would be particular, since what inheres in a particular would be particular.

So it is established that what would become accidental to the universal [form] on account of the substrate would not impair [the form's] universality, and the fact that the substrate⁹⁴ was particular would not imply that the inherent⁹⁵ would be particular.

⁹² The MS and MS Garrett 989Ha read, "and so the abstracted forms would not be universal."

⁹³ Reading with L and T as the singular; the MS and MS Garrett 989Ha have the plural.

⁹⁴ MS gl: I.e., the soul.

⁹⁵ MS gl: I.e., the universal.

Baydawi said:

L 299, T 143

b. *Tradition provides evidence of the rational soul's incorporeal nature from several aspects.*

1. There is the word of Him the Most High:

"Do not reckon those who are killed in the way of God to be dead; rather, they are alive and are given sustenance in the presence of their Lord." [Qur'an 3:169] There is no doubt at all that the body is dead, so what is alive would be something else and different from [the body], namely, the [human, rational] soul.

2. There is His word:

"A fire burns to which they will be subject every day and every night!" [Qur'an 40:46]. What will be subjected to it would not be a dead body, since punishment of a rigid corpse would be impossible.

3. There is His word:

"O you serene of soul, come back now to your Lord gladly and full of contentment" [Qur'an 89:27–28]. A dead body would not return and would not be [so] addressed, so the [human] soul is something other than the body.

4. On the occasion when He [the Most High] explained the generation of the [human] body and set forth the stages through which it is formed, He said,

"Then We brought him into being as another type of creature . . ." [Qur'an 23:14] By this He meant the [living] spirit, and that indicates that the [living] spirit is something other than the body. L 300

5. There is the comment of the Prophet, peace be upon him, as a dead man was being carried by upon his bier,

"[That man's] spirit is fluttering above his bier, saying, 'O my people!' and 'O my son! Do not let this world make sport of you as it did with me! I gathered up wealth, whether lawfully or unlawfully, then I left it to others, though the results were mine. So beware of anything like what has come upon me.'"⁹⁶ Therefore, the fluttering being was something other than [the body] over which it was fluttering.

Understand that these textual quotations point to the distinction between the two entities [body and rational soul], not to the [rational soul's] incorporeal nature.

⁹⁶ This *hadith* has not been located in the Wensinck concordances, both the concise in English and the complete in Arabic.

Moreover, those who deny [the rational soul's incorporeal nature] differ among themselves. Ibn al-Rawandi [d. probably middle of 4th/10th c.] said that [the rational soul] is an indivisible atom within the heart.⁹⁷ Al-Nazzam [d. between 220/835 and 230/845] said that [the rational soul] consists of fine [material] bodies flowing through the human body.⁹⁸

[The rational soul] has been said [by some] to be a power within the brain, and [by others] to be within the heart. [By others], it has been said that it consists of three powers, one [power] in the brain, namely, the 'rational' soul, a second [power] in the heart, namely, the 'emotional' soul, [also] called 'animated', and a third [power deep] in the liver, namely, the 'vegetative' or 'appetitive' soul.

Further, [the rational soul] has been held to constitute the humors [of the body], or [by other scholars], the [human] temperament.

Isfahani says:

L 300, T 143, MS 152b

b. *Tradition provides evidence* of the rational soul's incorporeal nature from several aspects

When [Baydawi] had finished with the arguments demonstrating the incorporeal nature of the rational soul from aspects of intellectual reasoning, he proceeded to set forth arguments demonstrating its incorporeal nature from the aspect of authoritative tradition. He quotes four verses from the Qur'an⁹⁹ and one traditional saying from the Sunnah. [Note that in the traditional saying quoted in Baydawi's text] the term "flutters" comes from the fluttering of a bird as it

⁹⁷ This statement is probably mistaken, as Ibn al-Rawandi is known as being opposed to atomism. Nothing to support this statement is found in the En-I-2 articles "Nafs" by E.E. Calverley and "Ibn al-Rawandi" by P. Kraus.

⁹⁸ See the article "al-Nazzam" in En-I-2 by Josef van Ess. Alnoor Dhanani, in his *The Physical Theory of Kalam*, p. 5 and note 10, writes: "Ibrahim ibn Sayyar al-Nazzam (d. ca. 220–230/835–845) and his followers held that the created world consists only of bodies and therefore its objects are constituted out of a bundle of interpenetrating corporeal bodies which define their properties and attributes." Dhanani gives J. van Ess, *Theologie und Gesellschaft im 2. und 3. Jahrhundert Hidschra*, I:355–358, II:398–492, III:331–355, as the authority for this statement. Professor Calverley also notes that statements of al-Nazzam are quoted in Tahanawi's *Kashshaf Ishlahat Funun al-'Ulum al-Islamiyah*, p. 1541 [= *Dictionary of Technical Terms in the Sciences of the Mussalmans*], Ed. by Aloys Sprenger and W. Nassau Lees, Calcutta, 1862.

⁹⁹ The MS and MS Garrett 989Ha add: [al-'azīm].

Isfahani does not repeat the quotations from Qur'an and Hadith in his text.

beats its wings [in hovering] about that upon which it intends to alight. There is no doubt at all that these [Qur'an] verses and the traditional saying demonstrate that the soul is distinct from the body. But they do not demonstrate [the soul's] incorporeal nature, nor do they need additional interpretation.

Those who reject the incorporeal nature of the soul have differed among themselves. Ibn al-Rawandi held [the soul] to be an indivisible atom in the heart. Then al-Nazzam said that [the soul] consisted of fine [material] bodies flowing within the physical body and continuing from the first of life to the end of it, neither fermenting nor decomposing. Thus, so long as [the rational soul] is flowing about within the body then the [body] is living, but when [the rational soul] departs then [the body] is dead.

[The soul] has been said to be a power within the brain, the source of sensate perception and body motion-change, and it has been said to be a power within the heart, the source of the living nature MS 153a within the body. [By others the soul] has been held to constitute three powers: one [power] is in the brain, namely, the 'rational soul'¹⁰⁰ because it is the source of the sciences and [collections of] wise judgments; a second [power] is within the heart, namely, the ['animated' or] 'emotional soul', that is the source of anger, fear, joy, sorrow, and other emotions; and the third [power] is [deep] within the liver, namely, the 'vegetative soul', source of nutriment, growth, and reproduction, that our author has called also the 'appetitive soul', because it is the source of attraction to what is favorable.

Further, the soul has been said to constitute the four humors [of the body], yellow bile, blood, phlegm and black bile, and it has been said to constitute both the human temperament and the equitable balance of its humors. [The soul] has been held to constitute both the shape¹⁰¹ and the organization of the body, as well as the combination of [all] its parts. And it has been held to constitute the [human body's] 'living nature'.

¹⁰⁰ L and T: unvowelled [ḥukmīyah?]; MS [ḥikamīyah ay ḥākimah]. Prefer [ḥikamīyah] from context following.

¹⁰¹ L 300 gl: That is, the [bodily] structure sensately perceived, this being the preferred theory with the majority of the Mutakallimun.

Baydawi said:

L 300, T 143

5. *The temporal nature of rational souls*

After the scholars in the [various] religious communities had established the fact that—except for that One who is a Necessary Being in Himself,—whatever exists would be a temporal phenomenon, they agreed that [the rational soul] is a temporal phenomenon.

However, there were some who granted as admissible [the theory] that [the rational soul] could have been created before the creation of the body, as it is related in the [ancient] annals¹⁰² that God had created spirits prior to bodies by two millenia. But others prohibited that theory L 301 because of the word of [God] the Most High,

“Then We brought him into being as another type of creature.”
[Qur’an 23:14]

Aristotle differed from those who preceded him and made [the rational soul’s] temporal existence conditional upon the temporal existence of the body.¹⁰³ He argued, moreover, that [rational] souls constitute a unity in their species; otherwise, they would be composite beings, because of their having commonality [with a body] in their being [a rational] soul, and thereby they would become a body, because every composite being is a body. Thus, if [the rational soul] should exist before the body existed, then it would be a single unit, because the plurality of individuals in a species comes about only by way of a material substance, and [the soul’s] material substance is a body. So [the rational soul] would not become a plurality prior to [the body’s existence]. And when [the rational soul] would become linked to its body, if it should continue as a single unit, then the implication would be that every unit would know [merely] what every other unit knew, and if it should not continue as a single unit, then it would be divisible, but an immaterial being is not divisible.

An objection to [the theory of Aristotle] has been raised in that the common understanding is that [an entity’s] being a [rational] soul consists in its having a governing role, and as that [role] is an

¹⁰² MS gl: [al-akhbār al-nabawīyah], [i.e., ancient records of prophecy.]

¹⁰³ See the note at this position in Isfahani’s following commentary.

accidental quality, composition [of the rational soul] is not implied from having a commonality in it.

But even if this argument should be granted, still we [i.e., Baydawi as disputant] do not grant that every composite entity would be a body. How could that be, when all incorporeal beings have a commonality with one another in their substantial nature while yet differing from one another in their species?

And if the unity in species should be granted, then why would it not be admissible that [the soul] should become a plurality,—prior to [the existence of] these [particular] bodies,—on the basis of the plurality of some other bodies?

Your [i.e., Baydawi's audience] confident conviction T 144 that the doctrine of metempsychosis is a falsity is based upon [the doctrine of] the [rational] soul's temporal nature. That is, when the body has completed its first stage of perfection, a soul pours into it as [part of] a general event of pouring, and because its [fulfilled] condition now exists, and then no other [additional soul] will join with [this body] since every [rational soul] finds itself to be a single unit, not two.

However, establishing the temporal nature [of the rational soul] by this [reasoning] would be argument in a circle.

Isfahani says:

L 301, T 144, MS 153a

5. *The temporal nature of rational souls*

After the scholars of the [various] religious communities¹⁰⁴ had established the fact that—except for God Most High, that One who is a Necessary Being in Himself,—whatever exists would be a temporal phenomenon, they agreed that the [human rational] soul is a temporal phenomenon, for indeed, [the rational soul] belongs with whatever is other than God Most High. However, some [scholars] among the religious communities held it admissible that the [rational] soul should be created prior to the creation of the body, according to what was narrated in the ancient records of history that God Most High created spirits before bodies by two millenia.

¹⁰⁴ MS gl: I.e., those who have a religious community and who give authority to a prophet. This is a cautious [word] against the philosophers, for they do not give authority to anyone and have no religious community.

Other [scholars] declared [the doctrine of] the creation of the soul prior to the creation of the body impossible because of the word of [God] Most High,

"Then We brought him into being as another [type of] creature." [Qur'an 23:14] Indeed, when [God Most High] explained the stages in the creation of man where He said,

"We created man out of a semi-liquid slurry¹⁰⁵ of clay; then we placed him as sperm in a secure place of rest; then We formed the sperm into clotted blood, then the clot into an embryo, then the embryo into bones; then We clothed the bones in flesh." He went on to say, "Then We brought him into being as another [type of] creature." [Qur'an: 23:12-14] By "another [type of] creature", [God] meant the 'spirit',¹⁰⁶ while His expression, "then", informs us of a slowing [transition, i.e., in the narration]. So the verse demonstrates the fact that the production of the spirit [i.e., the soul] and its creation are subsequent to the generation of the body.

Aristotle differed with MS 153b the philosophers who preceded him, like Plato, for Plato and those before him held the doctrine of the eternal antecedence of the [human] soul. But Aristotle held that the [human rational] soul is a temporal entity, and he made its temporality conditional upon the temporality of the body. Aristotle argued that the human rational soul is a unity in species,¹⁰⁷ because, if it should not be a unity in species, then it would be a composite being.¹⁰⁸ But this conclusion is false, so the premise is likewise.¹⁰⁹

The logical necessity in use here is that human rational souls have a commonality together in each being a human [rational] soul. Thus,

¹⁰⁵ [sulālatin] MS gl: i.e., a thin watery liquid.

¹⁰⁶ MS gl: i.e., the soul.

¹⁰⁷ MS gl: and in quiddity.

¹⁰⁸ From Aristotle's discussion on the definition of the soul:—["*On the soul*", Bk. 2:1:25 f., Sect. 412a f., pp. 642-3, J.A. Smith, translator, in the Enc. Brit. 'Great Books' reprint edition of *The Works of Aristotle*]

[Section 412a]: "... the 'soul' is the first grade of actuality of a natural 'body' [i.e., which is organized] having life potentially in it."

[Section 413a]: "... the 'soul' is actuality in the sense corresponding to the power of sight ... the 'body' corresponds to what exists in potentiality, as the pupil plus the power of sight constitutes the eye, so the 'soul' plus the 'body' constitutes the 'animal' [i.e., the living being].

"From this it indubitably follows that the 'soul' is inseparable from its 'body' ... Further, we have no light on the problem whether the 'soul' may not be the actuality of its 'body' in the sense in which the sailor is the actuality of the ship."

¹⁰⁹ The MS omits this clause, but MS Garrett 989Ha adds it in a gloss.

if they [each] should be different in quiddity, L 302 then the factor in which they had commonality would be something other than the factor in which they had distinguishability [i.e., of one from another], and so, they would be composites [in nature]. Regarding the falsity of the [foregoing] conclusion, it is because [of the argument that] if the [rational] soul should be a composite, then it would be a body, but such a conclusion would be false because of the proof [already] given that [the rational soul] is an incorporeal being. Thus, it is established that the soul is a unity in species.

Furthermore, if [the rational soul] should exist prior to the body then it would be a single [undivided] unit, because a plurality of the individuals of a species comes about by way of their material substance, and the material substance of the [rational] soul is the body; so, for the soul to become a plurality prior to the [creation of the] body would be impossible. Thus, it is established that if [the rational soul] should exist prior to [the creation of] the body then it would be a unity in species.

Then, when [the rational soul] is linked to the body, even if [the rational soul] should remain single, the implication would be that every single [rational soul] would know [only] what [every] other one would know. But this would be contrary [to the hypothesis]. And if the soul should not remain single after its linkage to the body, then it would be divisible. But the conclusion [here again] is false, because [the rational soul] is incorporeal, and an incorporeal being is not divisible, since receptivity to division is one of the requirements of matter.

An objection has been raised to this proof demonstration¹¹⁰ in that what results¹¹¹ from the fact that the soul is a human [rational] soul is the fact that it is what governs the human body, and the fact of its being the governor of the body is one of its accidental qualities. Further, from the fact that rational souls have a commonality in this accidental quality it cannot be inferred that there would be composition in their quiddity, because it is admissible that there should be a variation among rational souls in the totality of their quiddity

¹¹⁰ MS gl: That is, his statement that human rational [al-nafs al-nāṭiqah al-insāniyah] souls have a commonality with each other, that is, his statement that they are human [bashaʿīyah] souls.

¹¹¹ MS gl: I.e., what is 'understood' [by the reasoning].

in addition to their having a commonality in accidental qualities.

Even if it should MS 154a be granted that there is an implication that the [rational] soul would be composite, nevertheless we [Baydawi/Isfahani] do not grant that every composite would be a body. Your doctrine [i.e., the objectors to this argument] is that every body would be composite, and this is a universal affirmative [proposition], and a universal affirmative proposition is not reversible¹¹² to be like itself [i.e., as another universal affirmative]. And further, how can every composite be a body? All incorporeal beings have a commonality in their substance, substance being their genus. But they differ in their species, so their distinction from one another is by their 'specific difference'. Thus, incorporeal beings would be composites¹¹³ of the 'genus' and the 'specific difference', according to them [i.e., the objectors to this argument].

And if it should be granted that there is a unity among human rational souls in their species, then why would it not be admissible that [rational] souls would have become a plurality, prior to [the creation of] these [latter] bodies, according to a plurality of other bodies to which they would have been linked, and then from which they would have transferred to these [latter bodies] by way of metempsychosis?

[Baydawi's] statement, "Your confident conviction . . ." refers to his response to an interjection. The content of the interjection is that it would not be admissible that the [rational] souls should be a plurality prior to [the creation of] these [present] bodies, because if the [rational] souls should be a plurality prior to [the creation of] these bodies then metempsychosis would be implicit, but that doctrine is false.

The content of the reply is that your [i.e., the objectors'] confident conviction in the falsity of the metempsychosis doctrine is based upon the doctrine of the temporal nature of [rational] souls. And that is because your confident conviction of the falsity of the metempsychosis doctrine consists [in your belief] that when the body completes its first stage of perfection, a [rational] soul pours into it from its source because the pouring [of the soul] is an event of general nature and because the [fulfilled] condition already exists, [namely,

¹¹² MS gl: Le., No one can say, "Every composite is a body."

¹¹³ MS gl: Although [the disputants say that] they are not bodies. [From 'Ibri's commentary on Baydawi's *Tawallī*.]

the presence of a body for it]. Indeed, the completion of the first stage of the body's perfection is the condition for the temporal origination of the soul from its source. Thus, if a soul pours into [the body] from its source when [the body] completes its first stage of perfection, then no other soul will join to it by way of metempsychosis. If it should be otherwise, then the implication would be that one body would have two souls. But this would be false, because everyone finds himself to be one, not two [beings]. Therefore, metempsychosis becomes impossible. So it is established that the falsity of the metempsychosis [doctrine] is based L 303 upon the [doctrine of the] temporal nature of [human rational] souls. However, establishing the doctrine of the temporal nature of [rational] souls upon the falsity of the doctrine of metempsychosis would be a circular argument.

An objection could be raised¹¹⁴ that if [rational] souls should be a unity in species then their becoming a plurality, and their increase prior to [the creation of] the body, would be impossible. That would be the case because if [the rational souls] should be various and many, then they would not be a unity in species, because if they should be a unity in species then it would become impossible for them to be linked to various entities such as material substances, and the linkage of the various entities to them would become impossible. MS 154b

Now, [in reply to this objection, rational souls] are equivalent to one another in themselves, being without any priority or preference for one rather than another, but there is no impossibility T 145 in their being linked to various entities; and therefore, [the rational soul] would not be a unity in species. Thus, it would be established that if [rational] souls should be a plurality prior to [the creation of] bodies, then they would not be a unity in species. However, this conclusion is false, because the assumption is that they are a unity in species, so the premise is [false] likewise.¹¹⁵

¹¹⁴ L 303 gl: [Le., an objection could be raised] to this answer, from [the side of the disputants] on behalf of the metempsychosis doctrine.

¹¹⁵ In much of the world, students who are interested in learning about Islamic theology and philosophy must acquire understanding in their field through translations of the important writings from languages called "Eastern" into those called "Western." Books that are translated earlier will introduce a given writer's beliefs, theories of organization and idea structures that become the first models available for study. Later translations, such as this one of Baydawi's lectures on natural and

Baydawi said:

L 303, T 145

6. *The rational soul's linkage to the body and governance within it*¹¹⁶

The philosophers hold that the [human rational] soul neither inheres within nor resides adjoining the body, but is linked to it as the lover

dogmatic theology, along with Isfahani's commentary, present notions that may be compared with the earlier conceptions formed. Likewise, the earlier conceptions may require additional analysis and appraisal. In this final portion of Baydawi's Book 1 on Realities Possible (comprising his summary of orthodox Islamic 'natural theology'), it will be useful to append such a comparison.

Ibn Sina prominently divides the human 'rational soul' into two powers, namely, the 'practical' and the 'theoretical' powers, (*Avicenna's Psychology* Chapters 4–5, pp. 32–35, translated by Fazlur Rahman from Ibn Sina's *Kitab al-Najat*, Book 2, Ch. 6). For this division we suggest a reconciliation with Baydawi's equally prominent division of the "incorporeal substantial beings" into two major roles in relation to 'bodies', namely, as 'effective causes' and as 'governors' (see Topic 1 of this final Chapter 2 (of Book 1, Section 3). Ibn Sina is making a close study of the human 'rational' soul, while Baydawi is making a large survey in general 'soul studies', from the celestial scale to the human scale.

Two centuries before Baydawi, Ibn Sina had written (*op. cit.*, p. 32.): "The human rational soul is also divisible into a practical and a theoretical faculty [or, power], both of which are equivocally called intelligence." And Baydawi wrote, in his classification of 'incorporeal substantial beings':

The substantial beings not observable [by human sense perception] are either the "effective causes" or, the "governors" of bodies. The first [group, i.e., the "effective causes"] are the "Intellects [of the Celestial System]" and "Angels of Celestial Rank". The second [group, i.e., the "governors"] subdivides into higher [beings], namely, the "Souls of the Celestial System" and "Angels of the Heavens", and lower [beings], in the elemental world who govern either simple bodies . . . being called "Angels of the Earth", . . . or "particular individuals", these governors being called "Souls of the Earth", such as are [human] "rational souls."

One senses that readers may be mystified unnecessarily by Ibn Sina's variation in terms between 'soul' and 'intelligence', and then Baydawi's variation in terms between intellects, souls and angels may also be confusing. Therefore, an attempt will be made to clarify and reconcile Baydawi's and Ibn Sina's theories mentioned here. Whereas Ibn Sina begins with the united single entity of the human 'rational soul' and proceeds to make a division into *practical* and *theoretical* powers, Baydawi begins with a plurality of entities that are already divided into either '*effective causes*' or '*governors*'. The two mental acts, namely, the dividing and the naming of the divided parts, make these parts or aspects seem to be separate and discrete entities. Further, regarding the name 'Angels' [of the various ranks], we note that this name is provided by the 'scholars of religion', and at various points in the text we find a note by either Baydawi or Isfahani supporting this fact. The other names,—'souls', 'intellects' and the various 'powers' [or, faculties],—are provided by the 'scholars of philosophy'. So, from the first theorizations there have been partisans on both sides (religion and philosophy) who have supported the different sets of names, and thus have tended to preserve the notion that separate entities are involved.

is linked to the beloved. The motivating cause of [the rational soul's] linkage [to the body] is that its [own] stages of completion and ongoing pleasures, both of these being sensate as well as intellectual, are dependent upon [the body].

At the first [the rational soul] is linked [to the body] by the living spirit that is sent out from the heart, formed of the finest particles of nutriment. Then power from this rational soul pours out upon [this spirit] and flows along with it to the various sections of the body and into its depths. There [the power] effectively brings about in every body member powers appropriate to [each member]

The point of view that we suggest now is one which already may or may not be within the assumptions supporting the ideas held individually by Ibn Sina and Baydawi. It is a view that offers to bring together the disparities we see in the respective quotations. In this point of view, we suggest that the 'souls' and 'intellects' properly constitute different aspects of the same beings; namely, the soul/intellect, whether celestial or terrestrial. Likewise, the 'practical power' and the 'theoretical power' are two different powers belonging to the same entity, namely, the 'rational soul'. We propose that the separation seemingly existing between these respective parts, the soul/intellect, and the practical/theoretical powers, is not a separation in reality, but rather, it is in theory and in the mind only. Thus, in actuality, each pair of apparently separated parts properly constitute a unified whole being, and these unified whole beings, we propose, are of the same kind, namely, they are souls.

In the human 'rational soul' there is the 'practical power' of acting, of coordinating motion in the body, and of the *governance* of 'behavior'. Also in the 'rational soul' there is the 'theoretical power' of abstract and active intelligence, which relates forms to one another in an imaginative way, and plans and constructs abstracted possible realities which then need only an '*effective cause*' to become existent; this effective cause is what the 'intellect' is designated to be. Thus, the rational soul's two powers, 'practical' and 'theoretical', according to Ibn Sina, can be seen as equivalent to the two designated roles of 'soul' and 'intellect' respectively, namely, 'governance of bodies' and 'reflective interaction with reality', according to Baydawi. We remember that man's 'rational soul' is placed in the human body to be joined to it and to have governance over it. The last role mentioned, 'reflective interaction with reality', is our interpretation based on Baydawi's discussion of a number of existential factors like knowledge, choice, power to act, will, human obligation and divine imperative.

Therefore, if souls and intellects are to remain as if actually divided and separate, then 'soul studies' will remain an enigma, and if powers of practicality and theory are to be kept divided and separate, then 'rational souls' will deteriorate. In order to move towards a reconciliation of the problems set out in the quotations given, the theory of a unified, living human structure,—who is both soul and intellect and who has the necessary powers and opportunity,—needs to be investigated, analyzed, criticized, and defended.

¹¹⁶ Baydawi's opening statement on the topic ends with the words, "and 'executive action' within it." We are translating it, "and 'governance'", because Isfahani expresses [in his commentary here] the full connotation of the 'executive action' thus, "the manner of its 'governance and executive action' within it."

by which [the member's] usefulness is made complete, [and all these powers come together as a living human nature, signifying that it is] by the [willing] authorization of [God] who is Wise and Omniscient.¹¹⁷

¹¹⁷ Quoting from *Avicenna's Psychology*, the translation by Fazlur Rahman of Ibn Sina's *Kitab al-Najat* (Book 2, Chapter 6), [Reprint ed., Westport, Conn.: Hyperion Press, 1981]:

"The soul is like a single genus divisible in some way into three parts: . . . vegetable soul, . . . animal soul, . . . and human [rational] soul." (p. 25) . . . "The human rational soul is also divisible into a practical and a theoretical faculty, both of which are equivocally called intelligence." (p. 32)

Like others venturing into 'soul studies', in the tradition of Aristotle, his commentators, and especially Ibn Sina, (For example, please see *Two Greek Aristotelian commentators on the Intellect*, which is a study of Alexander of Aphrodisias and Themistius, by F.M. Schroeder and R.B. Todd; and Anton C. Pegis' study, *St. Thomas and the problem of the soul in the thirteenth century*, both titles from Toronto, Pontifical Institute of Mediaeval Studies, 1990 and 1978, respectively) Baydawi worked hard to organize and clarify the data which they had left on the way. But some 'big stones and deep mudholes' of terminology and relationships had caused, for later scholars, much futile 'spinning of wheels'. Inevitably, the early work was an 'ancient good become uncouth' in the clearer light cast by ongoing scholarship of the high Middle Ages, both south and north of the Mediterranean. When his church and pope in 1210 had interdicted Aristotelian studies, Thomas Aquinas in the latter half of the century found himself blocked as with a giant rockslide, which he circumvented only gradually. Nor was 'Abd Allah Baydawi, Aquinas' Persian contemporary, cowed by Ibn Sina's use more than two centuries earlier of the old Greek proverb (See above here, Bk 1, Sect. 2, Ch. 3, Topic 2, 'Psychic qualities—Perception and knowledge') as his sneering 'put down' for any scholars who would hesitate, puzzling over his fluent Arabic word tracks as they veered around and 'off the road' and across the sciences. Both Fazlur Rahman (in *Avicenna's Psychology*, pp. 1–21, Introduction, 1. the Subject.) and Majid Fakhry (in *A History of Islamic Philosophy* carefully trace how Ibn Sina would have worked out his concept and vocabulary of the soul from his Greek predecessors. Baydawi had to do the same with Ibn Sina's doctrines in his *Shifa'*, its abridgement, *Kitab al-Najat*, and the summary of his ideas in *al-Isharat wa-al-Tanbihat*.

Baydawi's control of terms and skill in their assignment is well displayed in this present topic, "The rational soul's linkage to the body and governance within it." We see that what is a 'soul' at one time, at another time he does not call an 'intelligence', (as in the second quotation beginning this note), and that what has been proudly displayed and labeled in Latin as a distinct power or 'faculty' at one time is not soon afterwards deliberately distorted by being overloaded with lately discovered functions and terms, as with the lamentable and nondescript 'sensus communis' in one's 'animal soul' mode. Baydawi has described 'coordination' (formerly *sensus communis*) quite clearly, but he did not find an appropriate term for it. Note how one of Ibn Sina's sentences clothed in Aristotelian colors forces a reader of English to hesitate in puzzlement just long enough to draw the master's glowering attention: "One of the animal internal faculties of perception is the faculty of fantasy, i.e. *sensus communis*, located in the forepart of the front ventricle of the brain" [*Avicenna's Psychology*, p. 31]. Here, 'fantasy' equals 'imagination' which is 'hoisted onto the back', as it were, of the '*sensus communis*'. Baydawi tacitly rejects that combination, while assenting to the notion of a smoothly coordinated 'team' of

These [powers] may be divided into agencies of perception and of motion-change.

Powers of external perception

The powers of perception then may be divided into external and internal [operation]. The powers of perception externally are the five senses.

Sight

The [sensate] perception of sight is by the reflection of an image back from the visual object to the pupil of the eye, and by the imprint [of the image] on a part of [the pupil]. This [imprint] is the point of an assumed cone, the base of which constitutes the plane of the visual object; and therefore a near [object] seems to be larger than a remote [one].

An opposing theory had been raised that [sight takes place, rather], through rays of an assumed cone that radiate from [the eye] to reach the visual object.¹¹⁸ But this theory is impossible, because if it should be true then the eyesight would be confused by gusts of wind so that an object directly in front [of the viewer] would not be seen while something else would be seen.

fairly discrete 'powers', which may often join in various combinations, to guide some mental or physical action.

The sense, or power of 'coordination' is not a super power over lesser powers, but rather it does coordinate the services of 'imagination' and the others. 'Imagination' usually is not an idle and futile pastime, but rather it is a serious and constructive study of fragmented past experience. Likewise, 'estimation' studies the significance of intentions that may be within a fluid situation involving various agents and their actions. These last two powers arguably deserve an additional distinguishing term in their respective names, as, 'constructive imagination', and 'significance estimation'. 'Memory' is so well known a power that its manifold functions are not a mystery. Then Baydawi's fifth power of internal perception is here translated as 'execution'.

¹¹⁸ Ibn al-Haytham [965–1039], famous for his book, *Kitab al-Manazir*, which is a work on optics, is credited with the rejection of this old theory. J. Vernet writes, in the *En-I-2*, s.v. "Ibn al-Haytham, al-Hasan ibn al-Husayn": "...like Ibn Sina [980–1037] and al-Biruni [973–1050], [Ibn al-Haytham] established that rays of light start from the object to travel towards the eye, and not the reverse as Euclid, Ptolemy and al-Kindi [d. ca. 866], maintained..."

Isfahani says:

L 303, T 145, MS 154b

6. *The rational soul's linkage to the body and governance within it*

The philosophers hold that the [rational] soul neither inheres within nor resides adjoining the [human] body, because [the rational soul] is an incorporeal substantial being. Thus, its linkage to the body is not the linkage of inherence, like the linkage of form with matter, or accident with substrate as is the linkage of blackness to a body. Nor is it the linkage of adjacency, as is the linkage of a man to his house or his clothing, with which he associates closely at times and from which he separates himself at other times. Rather, [the rational soul] is linked with the [human] body as a lover is linked with his beloved, by love wherein the lover is unable to part from his beloved as long as companionship is a possible reality.

The motivating cause for the linkage of the [rational] soul to the body is that [the soul's] stages of completion and its ongoing pleasures, both of which are sensate¹¹⁹ as well as intellectual,¹²⁰ are dependent upon [the body].

When it is first created the [rational] soul is without knowledge [but] is receptive to it and can obtain it by means of bodily instruments and powers. God said,

"Moreover, God brought you forth from your mothers' wombs knowing nothing, [then] He gave you L 304 hearing, and sight, and [the emotions of your] hearts, [these being] a lifelong prompting for you to give thanks." [Qur'an 16:78]

The [rational] soul at first is linked [to the body] by the living spirit that comes from the heart, and this [spirit] being a thin vapor-like body composed of the finest particles of nutriment. Then the rational soul pours out upon this spirit a power that flows along with the spirit's current to the various parts and depths of the body. Through that power [the rational soul] effectively brings about in every member of the body, both externally and internally, powers that are appropriate for each member; and through the powers that have been stimulated in it each member's usefulness is completed.

¹¹⁹ MS gl: The cause for the perception of particular sensations.

¹²⁰ MS gl: The cause for the perception of universals.

All of that¹²¹ [i.e., the coming together of these powers as a living human nature, signifies that it is] according to the [active] will of [God] who is Omniscient,—from whose attention not even the weight of a dust speck escapes,¹²² neither on earth nor in heaven, and neither smaller than that nor larger,—[yes, God who is] Wise, who brought to perfection everything He created, and then [for it all] He provided instruction.

These powers may be divided into the powers of perception and of motion-change.

Powers of external perception

The powers MS 155a of perception then may be divided into [powers of] external and internal [operation]. The powers of perception externally are the five senses: sight, hearing, smell, taste and touch.

Sight

The [sense of] sight is a power that is lodged in the two hollow nerves that meet, and that proceed to the two eyes after having met together. Lights and colors are the first perceived by the essence [of sight], and then [by the mediation of these lights and colors] other visible features are perceived, as shape, size, movement, beauty, and ugliness.

Sight perception of visible objects is by the reflection of an image from the visual object to the pupil of the eye, and by the imprinting of that image on a part of the pupil. That part [of the pupil] is the point of an assumed cone that has its base, that is, the cone's base, as the plane of the visual object and [the cone's] point at the pupil. Because the perception of sight is by the reflection of the image of the visual object to the pupil, and by [the image] being imprinted on a part of [the pupil] that is the point of an assumed cone whose base is the plane of the visual object, [for these reasons] a near [object] seems to be larger than a remote one. Thus, if the visual object should be nearer to the [viewer], then that [conic] angle

¹²¹ MS Garrett 989Ha omits "of that" and adds as a gloss: "I.e., the linkage firstly, the pouring out secondly, [and] the stimulation thirdly."

¹²² Reading with L, T, and MS Garrett-Yahuda 4486, [ya'zib 'anhu]; while the MS and MS Garrett 989Ha read, "be concealed from Him" [yaghīb 'anhu].

would be wider, and the visual object would be seen to be larger, while if [the visual object] should be farther from [the viewer] then that [conic] angle would be narrower and the visual object would be seen to be smaller.

An opposing theory had been raised that, rather, sight perception would be through the rays of [an assumed] cone coming out of the pupil to the visual object. The manner in which the rays reach the visual object may be imagined by estimating that there would be lines of beams leaving the plane of the cone whose base is at the visual object and whose point is at the pupil [of the viewer's eye]. Sight would take place at the [conic] angle that originates from those lines at the head of the cone. Now, by saying that rays extend from the pupil it is not meant that they actually extend, but rather, that they are said to extend as a metaphor, just as it is said that light extends from the sun. However, this theory is impossible, because if sight should take place through the rays of a cone extending out from the pupil of the eye and reaching to the visual object, then sight would become confused by gusts of wind.¹²³ What would be directly in front of [the viewer] would not be seen, but something else other than what was in front of [the viewer] would be seen, to which the rays [of vision] would be reaching.

Another objection could be raised that [although] sight might be confused by gusts of wind, that would not imply that there would be no sight of the object in front [of the viewer] and that there would be sight of something other than it.¹²⁴ Indeed, in place of the air that would be modified by the gusting of wind there would inevitably come in its place other air that would be modified by those rays of sight, since a void is impossible. Therefore, what was not in front [of the viewer] would not be seen, but rather the object in front [of the viewer] would be seen.

¹²³ MS gl: This requires consideration, for the rays of the sun are not necessarily blurred when winds blow, and what you have described does not happen.

¹²⁴ Text in the MS varies: "An objection could be raised not granting that sight would be confused by the gusting of winds." The following statement is cancelled, then follows the next sentence minus the final clause, "but rather, the object in front [of the viewer] would itself be seen."

Baydawi said:

L 305, T 146

Hearing

The cause of [sensate] perception [by hearing] is the arrival of vibrating air into the ear canal, [hearing] being a power that is lodged in the hollow [of the ear].

Isfahani says:

L 305, T 146, MS 155a/b

Hearing

The second of the five external senses is the sense of hearing. MS 155b The cause of [sensate] perception [by hearing] is the arrival of vibrating air into the ear canal, air that has been compressed between¹²⁵ a striking instrument and an object facing it that is struck [i.e., hammer and anvil]. Hearing is a power that is lodged in the nerve that is spread out in the hollow of the ear canal.

Baydawi said:

L 305, T 146

Smell

The [sense of] smell is [lodged] in the two appendages¹²⁶ that are at the front of the brain. [The brain] perceives odors when air affected by [the odors] reaches it.

Another theory is that [the sensate perception of smell is] by the arrival of air mixed with an inhering particle of something that has an odor. But this [theory] is impossible because not enough [odor] from a small amount of musk would emanate continuously to spread [as far as] the place that the odor reaches.

Isfahani says:

L 305, T 146, MS 155b

Smell

The third of the five external senses is the sense of smell. It is a power lodged in the two appendages, extending from [each side's] forepart of the brain, that resemble the breast nipples. [This sense]

¹²⁵ The MS has "between" [bayna] while L, T and MS Garrett 989Ha have "by" [min].

¹²⁶ The olfactory lobes with their corresponding olfactory bulbs project from the front of each hemisphere of the brain.

perceives odors when air qualified by an odor coming from¹²⁷ something having the odor reaches the nose.

Another theory is that [the nose] perceives an odor when air mixed with a particle that has emanated from something having the odor reaches [the nose]. But this [theory] is ruled out because it would be impossible for a small amount of musk to give off continuously enough [odor] to spread to the places that the odor reaches.

Baydawi said:

L 305, T 146

Taste

[The sense of taste] is dispersed in the nerve that is spread upon the body of the tongue. Taste perception is through mixing the moisture of the mouth with what is tasted and then by [the moisture] reaching the nerve.

Isfahani says:

L 305, T 146, MS 155b

Taste

The fourth of the five external senses is taste, namely, a power dispersed in the nerve that spreads over the body of the tongue. Taste perception is by mixing [in with the food] the moisture of the saliva coming from the organ called the '[gland] that salivates for tasting', and [then] by the taste [in the saliva] reaching the nerve.

[The perception of taste] is conditional upon the [saliva] moisture being free of any flavor like what is being tasted or opposite to it. In other words, the saliva must itself be devoid of any flavor so that [for] whatever one desires to taste [the saliva] can mix in with it and bear the flavor upon the body of the tongue, and thus the sensing of [the flavor] takes place.

Baydawi said:

L 305, T 146

Touch

The fifth [external sense] is touch, namely, [a power] that is spread over all the skin of the body. Touch perception is through nearness and contact with the object of touch.

¹²⁷ MS: "separated from" [al-munfaṣilah min]; L, T and MS Garrett 989Ha: "coming from" [al-muttaṣil min].

Isfahani says:

L 305, T 146, MS 155b

Touch

The fifth of the five external senses is touch, namely, a potency spread over all the skin of the body, by which is perceived heat and cold, wetness and dryness, smoothness and roughness, lightness and heaviness, and other things that may be felt such as hardness, softness, and stickiness. Touch perception is through nearness and L 306 contact with the object of touch.

No sensation [of touch] takes place by means of something [artificial] the operation of which resembles the operation of the body member wherein this power resides, because perception [by this sense] takes place only by passive reaction to an object [i.e., external to the body],¹²⁸ while no object [external to the body] would passively react to anything [artificial] resembling itself.

Now, regarding [the question of] plurality and singularity in the power of touch, there is an observaton to be made. It is possible that there would be many powers, each one of which would perceive two opposing [conditions of each of] these [touch] qualities. And then it is possible that there would be but one power, by which all these [various touch] qualities would be perceived.

Baydawi said:

L 306, T 146

Powers of internal perception

The powers of internal perception are five [in number].

Coordination

The first [of the powers of internal perception] is the power of 'coordination'.¹²⁹ It is a power that perceives the forms of all sensate

¹²⁸ The MS and MS Garrett 989Ha omit the first instance of [al-shay'], but L and T add it as clarification.

¹²⁹ L 306 gl: "It is called 'the sense having commonality' only because of its being a commonality among the external senses. Every [external] sense forwards to it a sensate form, and so it is there [within this power] that [a general] observation comes into being." [From *Sharh Taqrir* (?)]

Traditionally called the 'common sense'/'sensus communis', clearly its function is to 'coordinate' both the data received and the response to be given. Baydawi's description of its action clearly highlights its function of coordination. J.N. Mattock in En-I-2 s.v. "Ḥiss" complements our decision to change its name: "The Aristotelian

objects. For [as] we may decide about a certain thing that it is white, of pleasant odor, and sweet [of taste], the [intellectual] agency that is making that decision, without any doubt, has been assembling [from the different senses] the information by which and upon which the decision is made. Therefore, there must be a power which perceives all these factors together. Its location is the forepart of the first anterior lobe of the brain.

Isfahani says:

L 306, T 146, MS 155b

Powers of internal perception

When he had finished his explanation of the powers MS 156a of external perception he began to explain the powers of internal perception, also five in number. They either perceive directly or they aid in perception. Those that perceive directly either perceive forms that are perceivable by the external senses, or they perceive the individual quiddities that are not perceivable by [the external senses]. Those that aid perception do so either by memory retention, or by executive action. Those that aid by memory, aid either those that perceive the forms, or those that perceive the individual quiddities. These [then] are five powers.

Coordination

The first [of the powers of internal perception] is 'coordination',¹³⁰ that is, a power that perceives the forms of [all] sensate objects. These [perceived forms are preserved by another power—the power of imagination—by being restructively] imagined from the external sensate objects and their indistinct shapes in order to promote [intellectual] access to them.

'sensus communis' appears nominally in most of the Islamic theories . . . but is divested of many of its Aristotelian functions, for it serves merely to coordinate the percepts of the individual 'external' senses . . . Al-Farabi appears to assign a somewhat different role to this faculty: i.e., that of coordinating the percepts of the senses and those of [al-wahm]."

¹³⁰ MS gl: Namely, a potency in which is outlined the forms of the particularized sensate objects, and there the soul inspects and perceives them; and since this power is an instrument for the [rational] soul in its perception it is called a 'power' of perception.

The first part of this gloss is a free quotation from Jurjani's *Ta'rifāt*, at the phrase [al-ḥiss al-mushtarik], Ed.

What demonstrates the existence of this power [of coordination] is the fact that—regarding a body that is white, fragrant smelling, and sweet [of taste]—we do make a decision that it is [indeed] white, fragrant and sweet. And the agency of decision, without doubt assembles the information by means of which and about which the decision is made. But obtaining this information does not take place within the [rational] soul, because as you know, the soul is an incorporeal being and the forms of sensate objects would not be outlined within it, nor would they be outlined within any [single] external sense, for by a [single] external sense nothing can be perceived except a single species of sensate objects.

Thus, inevitably, the soul must have some power other than external sensation through which it may perceive everything together, that is, a particular color, a particular odor, a particular taste, and other factors. The location of the power of 'coordination' is the forepart of the first anterior lobe of the brain.

Baydawi said:

L 306, T 146

Imagination

The second [power of internal perception] is the imagination. This is a power that preserves these forms [of sensate objects], as indeed, 'perception' is not the same as 'preservation'. Its location is the back part of the anterior [brain] lobe.

Isfahani says:

L 306, T 146, MS 156a

Imagination

The second T 147 of the powers of internal perception is the 'imagination'. It aids [the power of] 'coordination' by preservation, being the repository for [what is received by] the power of coordination. In it the forms of sensate objects are gathered together after they leave the external senses, so that those forms are preserved.

What demonstrates the existence of this power is the fact that just as the soul is unable to decide whether a particular color belongs to [the food having] a particular taste¹³¹ except by some power by

¹³¹ The MS reads, [yuṣāhib hādhā al-lawn].

L and T omit the following text [about 9 words] that is found in the MS and MS Garrett 989Ha.

which it can perceive them all together, so likewise it is unable [to make that decision] except by a power that preserves together all [the sensory data]. Otherwise, the form of each of the two sensate [perceptions in succession] would become nonexistent when [the soul] would perceive the other and turn to it.

This sense¹³² is different from the L 307 power of coordination, because the 'reception' [of sensory data in the latter] is through a power different from the power through which there is the 'preservation' [of sensory data], since 'reception' and 'preservation' are sometimes separated. If both [of these functions] should be through a single power, then they would not be separable, and this is what [Baydawi] referred to by his statement that perception [i.e., the reception of data] is not the same as preservation. The [power of] imagination is located at the back of the anterior [brain] lobe.

Baydawi said:

L 307, T 147

Estimation

The third [of the powers of internal perception] is the [power of] 'estimation', namely, the power that perceives the particular individual quiddities [such] as the 'friendship' of Zayd and the 'hostility' of 'Amr.¹³³ Its location is the forepart of the posterior lobe [of the brain].

Isfahani says:

L 307, T 147, MS 156a/b

Estimation

The third of the powers of internal perception MS 156b is the [power of] 'estimation', namely, the power by which the [rational] soul perceives among particular sensate objects the particular individual quiddities that are not sensate objects. [Examples of these] are the 'friendship' of Zayd, the 'hostility' of 'Amr, and the per-

¹³² MS gl: Namely, the [constructive] imagination.

¹³³ Ibn Sina points out that the distinctive function of this power is in perceiving "the non-sensible *intentions* that exist in the individual sensible objects . . ." [*Avicenna's Psychology*, tr. F. Rahman, p. 31].

In relation to such psychological and behavioral qualities it does seem to us that the 'estimation' would be regarded as having better perception by the addition to it of the qualifying term 'significance' [Ed.].

ception by a sheep of a causal factor in a wolf that is not sense perceptible, that being its 'hostility', and the perception by a ram in a ewe of a causal factor that is not sense perceptible, that being its 'trustfulness'. These causal factors are not perceived by an external sense. Moreover, by this power [i.e., estimation as a power of internal perception] the [rational] soul makes [its] particular judgments.

Our author states that the location of the power of estimation is the forepart of the posterior lobe [of the brain]. It has also been theorized that its location is the back part of the middle portion [of the brain].

Baydawi said:

L 307, T 147

Memory

The fourth [of the powers of internal perception] is the [preservative power of] 'memory', namely a power that preserves what the power of 'estimation' perceives. Its location is the back part of the posterior lobe [of the brain].

Isfahani says:

L 307, T 147, MS 156b

Memory

The fourth of the powers of internal perception is the [preservative power of] 'memory', namely, a power that preserves these causal factors that the power of 'estimation' perceives, after [the rational soul's] agency of decision decides regarding them.¹³⁴

The power of 'memory' is different from the power of 'estimation' because, as you know, the 'reception' [of the data] is by a power other than that by which there is 'preservation.' Moreover, [memory] is different from the [power of] 'imagination', because the 'power that preserves the forms' [namely, the imagination] is different from the 'power that preserves the individual quiddities', [namely, the memory]. The location of the memory is the posterior lobe of the brain, [although] our author states that [its location] is the back part of the posterior lobe of the brain.

¹³⁴ The phrase, 'the soul's agency of decision', here is not specific in its reference. We surmise that 'the sense of coordination' is involved, as being closest in the context. But basically the reference would be to the constant function of 'judgmental assent or dissent' [al-taṣdīq] to a 'concept in formation' [al-taṣawwur]. [Ed.]

Baydawi said:

L 307, T 147, MS 156b

Execution

The fifth [of the powers of internal perception] is the [power of] 'execution', that analyzes and combines [the various] 'forms' and 'individual quiddities'.

It is called 'thinking [execution]' if [its action is through] the intellect, and 'imagining [execution]' if [its action is through] the [surmising] power of 'estimation'.¹³⁵ Its location is the 'vermiform process' that is in the center of the brain.

Isfahani says:

L 307, T 147, MS 156b

Execution

The fifth of the powers of internal perception is [the power of] 'execution'. It is the power that analyzes the forms [i.e., of sensate objects] and combines them, and it analyzes the individual quiddities and combines them.¹³⁶ At times it will distinguish a form from a form, or an individual quiddity from an individual quiddity,¹³⁷ or a form

¹³⁵ The last clause undeniably appears to be the same ambiguous use of terms for which we have criticized Ibn Sina. Resolution of this ambiguity may be in the fact that, according to Hans Wehr, *A Dictionary of Modern Written Arabic*, ed. by Milton Cowan, the term [wahn] is seen actually as a species of 'imagination', in which the terms 'conjecture', 'guess' and 'surmise' give it the total bias of 'estimation', a term in which we follow the authoritative translations of A.-M. Goichon [*Lexique de langue philosophique d'Ibn Sina*, (#'s 787–788)] and Deborah L. Black, "Estimation [wahn] in Avicenna: the logical and psychological dimensions," (paper presented at the annual meeting of the Middle East Studies Association, San Antonio, Texas, November 12, 1990).

The power of [khayāl] 'imagination' [as genus] Baydawi defines as the power of 'form preservation', and by implication, we judge, it includes the ability to work with the preserved 'forms' constructively. In the Wehr-Cowan dictionary, its added terms include 'apparition', 'fantasy' and 'vision', which do not give any clear bias in the total meaning of 'imagination'. Baydawi's use of [khayāl], however, we think exhibits a bias toward the 'constructive imagination', and the additional term 'constructive' provides the necessary distinction. On the model of the 'genus and species' relationship we suggest that 'imagination' is the genus, while two species under it are in common use, namely, 'constructive imagination' [khayāl] and 'estimative imagination' [wahn], as in Baydawi's usage here.

¹³⁶ L 307 gl: The combination of form with form is like when you say that something that has this special color has [also] this special flavor.

¹³⁷ L 307 gl: What is meant by "form [from] form" is taken from the power of coordination, and by "individual essence [from] individual essence" has been perceived by the power of estimation.

from an individual quiddity; [while] at times it will combine a form with a form, at times it will combine an individual quiddity with an individual quiddity, and at times it will combine a form with an individual quiddity.

The power of 'execution' is called a 'thinking [execution]' if [its action is through]¹³⁸ the intellect, and an 'imagining [execution]' if [its action is through] the [surmising] power of 'estimation', aside from its [primarily] intellectual function.

What demonstrates its difference from the other powers [of internal perception] is the fact that 'analysis' and 'combination' are [performed] by a power other than the power L 308 by which there is reception [i.e., 'coordination'] or preservation [i.e., 'imagination'] of a [perceived] difference. The '[power of] execution' is located in the vermiform process in the center of the brain.

Now, the factor demonstrating that these powers¹³⁹ are specific to these locations [in the brain] is [the fact of] the confusion of [the powers'] function when there is injury to these places. For when [physical] damage affects a particular [head] location it causes a defect in the function of the power [of perception] that is specific to that location.

These five powers are called [the powers] of internal perception, even if the ones that 'perceive' are only two,¹⁴⁰ because the internal perceptions are not [performed] completely unless it is by all of them together. In truth, what perceives the universals and these particulars is the [rational] soul, but [the rational soul's] perception MS 157a of universals is through itself, while its perception of particulars is by means of these powers.¹⁴¹

What we mean when we say that the [rational] soul perceives universals through itself is that the universal and intelligible form is delineated upon the [rational] soul, not upon the corporeal powers

¹³⁸ [ista'malahā] in L, T, and MS Garrett 989Ha; the MS alone has [ista'marahā].

¹³⁹ MS gl: i.e., the five powers of internal perception.

¹⁴⁰ The MS adds in the margin: "namely, coordination and estimation." This is a gloss, as it is not found in L, T or MS Garrett 989Ha.

¹⁴¹ Ibn Sina's contributions loom very large over this and the related topics. See Seyyed Hossein Nasr's presentation in his *An Introduction to Islamic Cosmological Doctrines*, pp. 177 ff. [Rev. ed., Boulder, Colo.: Shambhala Publ., 1978].

The following discussion together with the illustration (the three squares) are derived from Ibn Sina's discussion of the soul, in his *Kūtab al-Najat*, its Book 2 Chapter 6 translated and annotated in *Avicenna's Psychology* by Fazlur Rahman [reprinted: Westport, Conn.: Hyperion Press, 1981].

that are its instruments. And what we mean when we say that the [rational] soul perceives particulars by means of its instruments is that the sensate and imagined form together with the particular individual quiddities [whose features] have been estimated are delineated and imprinted upon [the rational soul's] instruments. But the [rational] soul's perception of [this information] is by means of those powers [of internal perception] and by [the information] being imprinted upon them.

[This may be illustrated] if we should conceive a square having wings of two [other] squares, and [if] the [rational] soul also should form a concept of it, it would be implicit that the locus of [each of] the two wings would be different from the other since we distinguish between the two wings as being different in position while really matching one another. This act of distinction does not take place in external reality as it is not based on something external, since the assumption here is that the square does not exist externally. Therefore, this act of distinction would be in the mind.

So, one of the two wings would have to be [mentally] delineated in a location different from T 148 the location in which the other wing would be delineated. Otherwise, the act of distinguishing would become impossible, because the distinction of one of them from the other would be neither through the quiddity nor through its concomitants, since the two wings match each other in these things.

Delineation [of their hypothetical outline] would then have to be upon a body or something corporeal, so that the distinction [between the two side wings] might occur in accordance with the difference in location between the two of them. For [the outline] may not be delineated upon the [rational] soul; otherwise, the divisibility of the [rational] soul [i.e., as if it were a material body] would be implicit, but that is impossible. So, the [rational] soul's perception of a particular would be only through instruments.

[Baydawi's] statement that what first perceives the particulars is these [instrumental powers] is summed up when he says that these [particulars] are delineated in [the instrumental powers], and that this delineation of them in [these powers] constitutes the [rational] soul's perception of them. Very often an action is traced to the instrumentalities that are [only] the means by which an action proceeds from the agent.

Baydawi said:

L 308, T 148

Powers of body motion-change that are voluntary and elective

The [powers] of [body] motion-change are divided into those that are voluntarily elective and those that are naturally autonomic. The [voluntarily elective] powers are divided into

- a. the motivating power, that impels [either]
 - 1. to the obtaining of something advantageous, and is called the appetitive power, or
 - 2. to the repelling of something disadvantageous, and is called the belligerent power; and,
- b. the activating power is called the [power] causing motion-change for it moves the [body] members through stretching and slackening the sinews. It is the proximate cause of body motion-change.

Isfahani says:

L 308, T 148, MS 157a

Powers of body motion-change that are voluntary and elective

When [Baydawi] had finished with the powers of perception, he began on the powers of body motion-change. These¹⁴² are subdivided into [powers] of body motion-change that are 'voluntarily elective', and [powers] of body motion-change that are 'naturally autonomic'. The voluntarily elective powers of body motion-change are divided into

- a. the 'motivating' [power] that impels
 - 1. to the obtaining L 309 of something advantageous, and is called the 'appetitive' power, or [impels]
 - 2. to the repelling of something disadvantageous, and is called the 'belligerent' power; and
- b. an 'activating' power that activates motion-change in the body members by stretching and slackening the sinews. This [power activating motion-change] is the proximate cause of voluntarily elective body motion-change. The voluntarily elective [body] motion-changes have four sources arranged in sequence. MS 157b

¹⁴² Reading with T where a pronoun is used. L repeats the two words preceding [al-quwa' al-muḥarrikah], while the MS repeats one of them [al-muḥarrikah].

1. The first [source of voluntary movement] is a 'particular concept' of something that may be appropriate or inappropriate, a concept that may or may not correspond [to external reality]. It is only necessary that the concept be particular, since the relationship of a universal concept would be with all particulars equally, so no specific particular would occur through it. Otherwise, the implication would be that one of the equal entities would have preference over the rest, but this would not be all the [rest of the] particulars since it would be impossible for [all particular] entities to occur without limit.

2. The second [source of voluntary movement] is a 'desire' that would spring from that [particular] concept, either

a) as an attraction—whether that thing be pleasant or advantageous, assuredly or supposedly so,—that is called 'appetitive attraction', or

b) as a repulsion and overcoming—whether that thing be repugnant or disadvantageous, assuredly or supposedly so,—that is called 'belligerent repulsion'.

3. The third [source of voluntary movement] is a '[positive] will' or a '[negative] aversion'. They constitute the 'resolution' that becomes an irrevocable decision after some hesitation whether to act or to desist. What demonstrates that '[positive] will' and '[negative] aversion' are different from 'craving desire' is the fact that a man may be positively willing to deal with something for which he has no liking, and may be [negatively] averse to dealing with something for which he does have a liking. When [either] the positive willing or the negative aversion exists, there will be a preference shown for one of the two alternatives of acting or desisting, although the relationship would be equal between each of them and the one able to decide between them.

4. The fourth [source of voluntary movement] is that motion-change comes from the [voluntarily elective] power and is dispersed in the muscle. What demonstrates its difference from the rest of the sources is the fact that one person might have the desire and the resolution [to act] but be unable to move his body members, while [another] would be able to move [his body members] but have no desire or resolution [to act].

Baydawi said:

L 309, T 148

Powers of body motion-change that are naturally autonomic

The naturally autonomic powers of body motion-change either a.) will preserve the individual or b.) will preserve the species.

a. The first group [i.e., powers preserving the individual] has two classes,

1. the 'nutritive' [power], that changes nutriment into [a structure] resembling the person nourished, in order to replace what has been dissolved; and

2. the 'growth' power, that adds to the [various] sections of the body, according to a natural symmetry, up to the limit of development.

b. The second group [i.e., powers preserving the species] also has two classes,

1. the 'generative' [power], that separates off a part of the nutriment after digestion occurs, in order that it may become the 'material substance' of another individual; and

2. the 'formative' [power], that changes that 'material substance' in the womb and provides it with forms and powers.

c. Four other auxiliary powers serve these four powers [i.e., a.1-2 and b.1-2]:

1. [the power of] 'drawing' that draws along¹⁴³ what it needs.

2. [the power of] 'digestion' that makes nutriment into something appropriate to become part of the being that is nourished, and this [power] has four stages:

a) when [the nutriment in the mouth] is chewed;

b) [when the nutriment] in the stomach becomes like a thick semi-liquid mass of cracked wheat and sour milk¹⁴⁴ and is called 'chyle';

c) [when the nutriment is] in the liver, that is, when the chyle becomes the 'humors', namely, blood, yellow bile, black bile, and phlegm; and

d) [when the nutriment is] in the [lower digestive] organs.

¹⁴³ Reading with MS Garrett 283B:33b, MS Garrett 989Hb:26b, and MS Garrett-Yahuda 3081:134b [tajdhib] which is on the same root [j-dh-b] as the preceding adjective. L and T: [tajlib]. Actually the two different roots both carry the sense "to attract."

¹⁴⁴ [ka-mā' al-kishk al-thakhīn] Reading with T, MS Garrett-Yahuda 3081:134b, MS Garrett 283B:34a, MS Garrett 989Hb:26b, as well as Isfahani's commentary in L. L has a scribal error [mā' al-kishk wa-al-sakhīn].

3. [the power of] 'holding' that holds what has been drawn along L 310 while the digestion is working on it.

4. [the power of] 'propelling' that propels the excess residue ready for disposal on to the last organ [in its course].

Isfahani says:

L 310, T 148, MS 157b

Powers of body motion-change that are naturally autonomic

When he had finished explaining the powers of perception and [the powers] of body motion-change that are voluntarily elective,—[powers] in which mankind has a commonality with the animals,—[Baydawi] began [to explain] the powers of body motion-change that are naturally autonomic,—[powers] in which [mankind has a commonality with [both] animals and plants.

There are three fundamental powers: two [powers] (a.1–2) for the preservation of the individual, namely, the powers of nutrition and growth, and one [power, i.e., in two divisions] (b.1–2) for the preservation of the species, namely, the power of reproductive generation [of beings] of the same kind. These three powers are called the 'vegetative' powers.¹⁴⁵

a. [For the preservation of the individual]

1. The 'nutritive' power is the one that changes food given as nutriment into [a structure] resembling the person being nourished in order to replace what becomes dissolved; thus, the action of this power would be the [whole process of] changing the food [given for nutriment] into [a structure] resembling the person being nourished. The place of its action is [in] the nutriment that has been given and its purpose is to replace what becomes dissolved.

2. The 'growth' power is a power that is the necessary cause of increase in the various sections¹⁴⁶ MS 158a of the body of the person being nourished. This increase is according to a natural symmetry that is preserved in the [various] parts T 149 of [the body] of the person being nourished so that by its symmetry growth¹⁴⁷ may be completed. [Baydawi's] expression, "according to a natural symmetry", excludes increases that are outside the natural course [of

¹⁴⁵ Isfahani outlines these powers slightly differently from Baydawi.

¹⁴⁶ MS gl: i.e., height, breadth and depth.

¹⁴⁷ L: [amr al-nushū?]; T: [amr al-nash?]; the MS and MS Garrett 989Ha: [al-nushū?].

growth], as are swellings [on the] body. His reference to being “preserved in the parts [of the body] of the person being nourished in the three dimensions”,¹⁴⁸ excludes artificial increases, because when the Maker increases the height He then decreases the breadth and the depth, and vice versa. And his statement, “That by [its symmetry] growth may become complete,”¹⁴⁹ excludes obesity.¹⁵⁰

The [two powers of] growth and nutrition have a commonality¹⁵¹ in their action, for the action of both of them is to obtain nourishment and make it adhere and conform to the [person] being nourished. So if these actions approximate what disintegrates, then [the mutual action] is [one of] nourishment; if it is more, then it produces growth.

b. [For the preservation of the species.] The power of the ‘reproductive generation’ [of species] has two divisions,

1. the ‘generative power’ that separates out a part of the nutriment after it has been completely digested and prepares it to be the basic material and source for another individual, and

2. the ‘formative power’ [of conception] that changes that basic material in the womb and supplies it with the forms, powers, and accidental qualities that occur in the species from which the [fertilizing] seed had separated [and come].

These three powers [i.e., a.1–2, b.(1/2)] are needed¹⁵² only because [human rational] souls pour out from their source upon composite bodies only according to how near or remote the [bodies’] constitutions may be to a harmonious balance. In their constitutions there are inevitably parts that are hot by nature. Further, from every [rational] soul an active quality appropriate to the living nature [i.e., of the body] is dispersed [within the body] in order to be an instrument for [the rational soul] in its actions and a servant to its powers,

¹⁴⁸ Isfahani’s “quote” is not from Baydawi’s text,—according to L & T and all three Garrett manuscripts consulted—but from his own commentary a few lines previous (a.2.), with a new ad hoc addition: “maḥfūz fī ajzā’ al-muḡhtadha’ fī al-aqtār al-thalāthah.” He substitutes “parts” [ajzā’] for Baydawi’s “sections” [aqtār] [of the body] then uses Baydawi’s term in the different sense of “dimension”, intending toward his author’s concisely stated idea of symmetry.

¹⁴⁹ Baydawi’s words [ila’ ghāyat al-nushū’] are paraphrased by Isfahani to read [li-yatimm bi-hi amr al-nushū’]. The paraphrase is then quoted as Baydawi’s text. See the previous note for textual variations here.

¹⁵⁰ MS gl: [I.e., continuing increase in size] after the normal age of its cessation.

¹⁵¹ L & T: [mutashārikātān]; the MS: [tatashārakān].

¹⁵² L, the MS, and MS Garrett 989Ha: [uḡtuyij ila’]; T: [iḡtāj ila’].

and this quality is a spontaneous heat. These two [kinds of] heat¹⁵³ together necessitate the dissolution of the moisture existing in the composite body, while external heat¹⁵⁴ from outside [i.e., the earth's sphere] aids the two of them in this. Thus, if there should be nothing to replace what is dissolved in the constitution, then it would become corrupt quickly, and the preparation of the composite [body] for linkage with the soul within it would be futile.

Therefore, it is the wisdom of [God] the Maker Most High that has necessitated the temporal origination of a power [i.e., of generation] that takes what potentially resembles the body [i.e., of the person being nourished] and changes it into something actually resembling it while adding to it, [all] in order to replace what is dissolved. L 311 Now, since the elements exert mutual tendencies toward separation, and since the corporeal powers bring no compulsion [upon the elements] to stay together permanently, and since God's prudent foresight requires the continuance of the species MS 158b for as long a time duration as [He] wills them to remain, and since it is impossible for an individual to continue forever, therefore God has issued His particular decree that the continuance [of the species] should be through a continuous succession of individuals.

This is either

a. by way of 'instant generation',¹⁵⁵ in something the parts of which easily come together, because it is far from being a harmoniously balanced constitution, and because its constitution is of wide range,¹⁵⁶ or, it is

b. by way of '[specific] procreation' in something that has difficulty in that [process], because it is near to being a harmoniously balanced constitution,¹⁵⁷ and because of its narrow range of constitution.

¹⁵³ L 310 gl: One of them is natural heat that is in the nature of one of the parts, as fire, for instance, and the other is spontaneous heat that occurs from the combining of the parts.

¹⁵⁴ L 310 gl: This is either the heat resulting from star beams, or [it is] the heat that results from the motion of the stars.

¹⁵⁵ MS gl: This is the coming into being without any special procedure, that is, effort by an agent. What is meant is that a living being [al-ḥayāwān] [comes into existence] but does not result from the semen of a living being.

¹⁵⁶ MS gl: The term "breadth of constitution" [ʿarḍ al-mizāj] applies to what is between 'rarity' [al-ifrād] and 'commonplace' [tafrīt]. The rarity is that which is near to being a harmoniously balanced constitution [ʿitidāl al-mizāj], while commonplace is what is remote from it.

¹⁵⁷ MS gl: If the constitution is near to being harmoniously balanced, its range is narrow, but if it is far from being harmoniously balanced then its range is broad.

So, then God created the [human rational] soul as having a power that separates out from the matter obtained by the nutritive power some that it prepares to become the [basic] matter for another individual. When the matter separated out is less than the amount necessary for a complete individual, God has made the soul to have the power to add little by little from the matter obtained by the nutritive power to the matter separated out. So by this the [rational] soul increases the total amount [of the individual's material substance] in the various body sections according to a symmetry just right for individuals of that species, until the individual is complete.

In summary therefore, a complete 'vegetative soul' possesses only three powers by which it preserves the individual: when it is complete [(a.1) nutrition], and brings it to completion when it is incomplete [(a.2) growth], and [when it] preserves the continuity of the species by reproducing its kind [(b.1/2) preservation of both species and individual].

c. An auxiliary service—to these four powers of nutrition, growth, [species] generation, and [individual] form preservation [i.e., a1–2, b1/2]—is rendered by four other powers, [namely], 1. drawing, 2. digestion, 3. holding, and 4. propelling.

(1.) The power of 'drawing' draws in the food that is needed and it is present in all body members.

a) [The power of drawing] is in the stomach because the food moves along from the mouth to it. That motion is neither voluntarily elective, since the food is not a living being, nor is it naturally autonomic, since the food is swallowed when it sinks and so [the movement of food] is inevitably either by the propulsion of a power propelling from above, or by the drawing along of a power drawing from the stomach. The first of these actions is invalid, because the food may be drawn to the stomach without being propelled to it, so the second action is indicated. On this account we find that there is a drawing [down] by the esophagus¹⁵⁸ and the stomach upon the food above [them] when the need is great, apart from the will of the one being nourished. And because the stomach

And if a particular thing should occur by way of generation [tawallud], then it would be because its constitution is far from being harmoniously balanced and the range of its constitution is broad. And furthermore, there is no need in it for a generating agent, because its occurrence results easily from the joining together of the parts of the elements since its constitution is far from being harmoniously balanced.

¹⁵⁸ MS gl: i.e., the red veins [al-'urūq al-aḥmar].

draws [down] what is pleasant into its cavity, for that reason what is sweet comes out with the vomit after everything else, although the one being nourished took it first.

b) The [power of drawing is also] in the uterus, for when it has been emptied of the excess blood waste at a woman's period MS 159a by the cessation of the menstrual discharge, a man senses at the time of intercourse that his glans¹⁵⁹ is being drawn within.

c) [The power of drawing is also] in other body members, because the four humors, namely, the yellow bile, the blood, the phlegm, and the black bile, are found mixed together in the liver, but each one of them is distinct [from the other] and is directed into an appointed body member. If [this power of drawing] should not exist¹⁶⁰ in each body member, then [the member] would not have its own peculiar humor.

(2.) The power of 'digestion' L 312 is what changes the food in such a way that it is suitable for the nutritive power to transform it into a body member. So then, to repeat, the action of the digestive power is to change the food into something appropriate to become part of the living being that is nourished, while the action of the nutritive power is to transform [the food] actually into what is part of the being that is nourished. The power of digestion has four stages:

a) The first stage begins in the mouth when there is chewing. This is why [the application of a poultice of] prechewed wheat will promote the ripening of boils more quickly than will the promoting action [of a poultice made] of cooked food. The termination [of the first stage of digestion] is in the stomach, when the food becomes a substance like a thick mass of cracked wheat and sour milk, and is called chyle.

b) The second stage [of digestion] is in the liver, and in this stage [the food] proceeds in such a way—after [the chyle] has descended T 150 from the stomach to [the liver]—that there develops from the chyle the four humors, blood, yellow bile, black bile, and phlegm.

c) The third stage is in the veins [i.e., blood circulation].¹⁶¹

¹⁵⁹ MS gl: That is, the wormlike part at the head of the penis.

¹⁶⁰ MS gl: I.e., the existence of the power of attraction.

¹⁶¹ L gl: [Regarding] his expression, "The third stage is in the veins":

d) The fourth stage is in the [receiving] body members, and in this stage [the food] proceeds in such a way that it is suitable to be part of a member.

(3.) The power of 'holding' is what holds the food that has been drawn in until the digestive power digests it. Its action in the stomach [firmly] encloses the food so that it touches it on every side in such a way that there is no space between the internal top of the stomach and the food. This [firm] enclosure is not because the stomach is full, for if the food is little while the holding power is strong this [firm] enclosing takes place. So on this account the digestion would be good at such a time. And the action of the holding power in the womb is that it encloses the semen so as to prevent its descent [externally], for if there should be no holding power then the semen would descend of itself because it is heavy.

Likewise, a comparative reference may be made to the rest of the body members.

(4.) As for the power of 'internal propelling', it is what propels the [food] residue and [refuse] ready [for disposal] on to the last organ on its course. What indicates the existence of the propelling power is that a man will find when he evacuates the bowels¹⁶² that the bowels are inclined to propel their contents downwards.

Sometimes these powers become many for one [or more] of the body members, as with the stomach. In it there are the powers of drawing, MS 159b holding, digesting, and [internal] propelling in relation to its provision of nutriment for the total body; and these powers are in it also in relation to the food by which the stomach itself is nourished specifically.

After the four humors are generated in the liver they are poured into the vein, situated [al-thābit] on [the liver's] convex side, called "the undermined bank" [al-ajruf] and is opposite the vein situated in its concavity, that is called "the stationary one" [al-thābit]. Then the humors, all mixed up together, are propelled into the veins branching out from "the undermined bank", and in them the humors are digestively broken down completely, more so than in the liver. And there [in the veins] there is prepared what will serve as nutriment for every body member, and it becomes ready for some agency to draw upon it. [Jurjani, *Sharh Maʿwaqif al-ʿIjā*.]

¹⁶² MS gl: Evacuation of the bowels [al-tabarruz] is the going aside [from a path-way] onto vacant ground to make [the action] take place.

Baydawi said:

L 312, T 150

7. *The permanent survival of the rational soul after the body's death*

The soul does not perish at the death of the body; [this is] because of [what has been said in] the [sacred] texts that we have studied earlier.

The philosophers argue that since the [rational] soul is not material, while everything that will accept nonexistence is material, the [rational] soul, therefore, will not accept nonexistence. This doctrine has been discussed both affirmatively and negatively in two preceding topics [Topics 4 and 5 above on 'rational souls']. Then, they say, after [withdrawing from] the body [the rational soul] will have [either] bliss or misery,¹⁶³ [and for good reason].

If [man's soul] has understanding of God Most High,
His necessary existence and His deep flowing goodness,
if [man's soul] is self-purified of defects,
is free of diseased conditions in the flesh,
and is turned away from corporeal diversions,
then [his soul] can delight in ecstasy, complete and noble,
then it joins in community with others so delivered and sanctified,
and all angels made worthy of veneration.

But if [man's soul wickedly] stays ignorant [of God],
[if man in his soul] trusts futilities that lead astray,¹⁶⁴

¹⁶³ Cf. the Qur'anic declaration, "A day is coming when not a soul shall speak except by His permission, some being in misery and some in bliss." [Qur'an 11:105]

Observe now that both Baydawi and Isfahani (with expansion) begin at this point to write out a beautifully sonorous peroration, moving along with deep emotion to summarize this high closing topic of Book 1. As well as we can translate them, the lines of this peroration should be kept as units, so that the flow of meaning can be perceived with appreciation.

¹⁶⁴ Jurjani's *Ta'rifat* defines the varieties of [al-jahl]:

"'Ignorance' is believing a thing to be different from what it is; . . . 'simple ignorance' is lack of knowledge about that which it is one's function to know; 'compound ignorance' is a term for convinced belief in what does not match actuality."

J.G. Hava's *al-Fara'id al-darriyah* joins the term 'foolishness' to 'ignorance' as the second definition. Also from Hava, the ['Time of] Ignorance' [al-jāhiliyyah] was the "State of infidelity amongst the pagan Arabs before Islamism."

then [he] will suffer in perceiving [the evil in] ignorance,
and [again he suffers] longing for [some treasure of] knowledge,
and [again he will suffer] despairing his loss. L 313

Then [man's soul], an immortal being and made to be immortal,
can hope to come again to this world and win immortality's mark.
However, if [man's soul] bears diseased conditions in the flesh,
along with repulsive character,

then it shall be punished for inclining to these things,
but its penalty [for] involvement in them shall be remitted
after just as long [a time] as it remained engrossed
in them, until [all wickedness] shall cease.

O may God set us [at last] among happy and righteous [souls],
and may He call us up alive in company with those who love good;
"So let peace rest on whoever walks in [Heaven's] Guidance."

[Qur'an 20:47]

Isfahani says:

L 313, T 150, MS 159b

7. *The permanent survival of the rational soul after the body's death*

The soul does not perish at the death of the body. As for ourselves,
this is [true because of what is] contained in the texts [that we have
studied] and others like them [that have been considered earlier].

The philosophers hold that

- a. the rational soul is not a material entity; but that
- b. everything receptive to nonexistence is a material entity, there-
fore,
- c. the rational soul is not receptive to nonexistence.

Here the minor premise (a.) [is true] because of the fact estab-
lished earlier that the rational soul both in itself and in its stages of
completion is not imprinted¹⁶⁵ in a body wherein it resides. The
major premise (b.) [is true], because if [on the other hand, the soul]
should be receptive to vanishing [into nonexistence], then before

Thus the additional senses of moral and religious error are joined to 'ignorance',
and this totality may be considered fairly as having the quality of 'wickedness'.

¹⁶⁵ MS gl: I.e., based in.

vanishing it would be continuing to live in actuality while in potentiality it would be falling apart in corruption. There is no doubt that the actuality of surviving is different from the potentiality of corruption. But, if the case should be otherwise [i.e., if they should be the same], then everything surviving would be a possible corruption, and every possible corruption would be surviving.

[However], it would not be admissible for the substrate of a 'potential corruption' to be identically the same as the substrate of an 'actual survival'. The substrate of a 'potential corruption' would be receptive to corruption to such a degree that in itself it would be characterized as 'corruption'. [On the other hand], an 'actual survival' would not be continuing at the point of corruption, so [the 'actual survival'] in itself would not be characterized as ['corruption']. So, the substrate of an 'actual survival' would be different from the substrate of a 'potential corruption'. And therefore, there would be two different entities within the soul, and this would imply that [the soul] would be composed of the two entities, one of the them being the substrate of the 'potential corruption' and the other the substrate of the 'actual survival'. Each of these two parts would be a 'substance' by the inherent necessity in the fact that 'part of a substance' would be a 'substance'. Therefore, the implication would be that [the soul] would be composed of 'primal matter' and 'form', and so, the soul would not be incorporeal. But [all] this would be contrary to the hypothesis.

1. To this [reasoning of the philosophers a first] objection has been raised that a 'potential corruption' would be the same as a 'possible nonexistence', and this would not be a factor of certainty, so it does not call for a substrate.

2. Also [there is a second objection, asking] why would it not be admissible that the soul should be composed of [some] 'primal matter' and a 'form' that would be different from the primal matter of bodies and their forms, and thus there would be no implication that it would be a [material] body?

3. Also [there is a third objection, that] the soul being a temporal phenomenon, it would have been preceded by the possibility of existence. Now, just as this antecedent possibility [of existence] did not require that the soul be material, so [its] possibility of corruption would not require that it be material.

1.-a. The answer to the first [objection against the philosophers' argument] is that this possibility [i.e., of nonexistence] is one

of predisposition that is an accident of existence, and it does require an established substrate.

2.-a. The answer to the second [objection] is that the [soul's] primal matter, that would be different MS 160a from the primal matter of bodies, must continue after the actual occurrence of corruption, in view of the previous discussions, and so inevitably, either it would have a 'position', or it would not.

The first [alternative here] would be impossible, otherwise, it would be implied that [the soul's primal matter] would be a '[material] body' and that it would have a 'position', although being a part of something that had no position, both of these [implications] would be impossible. In the second [alternative here, the soul's primal matter] inevitably either would be L 314 something existent in isolation, or it would not be existent in isolation.

If it should be the first [of these latter options], then it would be a rational being in itself, as you will come to know, and thus it would be a soul, although we have assumed [its primal matter] to be only a part of it. But this would be contrary to the hypothesis; and in spite of T 151 this [fact] the conclusion sought has been attained, namely, the survival of an intelligent, incorporeal substantial being after the death of the body.

But if it should be the second [of the preceding options], then either the body would have an effect upon [the primal matter's] subsistence, or it would not. This first [alternative here] is impossible, for otherwise [the primal matter] would need the body for its own existence, since it does not have the power of action in itself. But the invalidity of this [reason] has been established. The second [alternative here, i.e., that the body would not have an effect upon the primal matter] implies that [the primal matter] would survive because of another entity from which it would derive its existence. Further, [it implies that] the body's inability, because of death, to be both its instrument and the preserver of a linkage with it will prejudice neither [the primal matter's] being a substance nor its survival.

3.-a. The answer to the third [objection against the philosophers' argument] is that indeed, neither the antecedent possibility [of existence] nor the possibility of corruption require that the soul be a material entity. But the body, with a special [organismic] structure,¹⁶⁶ has been existent, before the origination of the soul, as a

¹⁶⁶ MS gl: Namely, its pure constitution.

substrate for the 'possible origination' of the soul, that is, the 'pre-disposed possibility' for [the soul's] origination, wherein it would be a soul [capable both of] governing and of independent executive action with the goal of becoming a stage of its own completion. Thus, the temporal origination of the soul, from the very first, would be in accordance with this predisposition.¹⁶⁷

So, if this specific organismic structure should cease to be, then the body would become [so imperfect and corrupt] that it would not be ready to receive the signaling effect of its governing agency, and so [the body's] linkage with [its governing agency] would be cut off. But the absence of this readiness [in the body] does not logically imply the absence of the governing agency in itself, but rather [only] in its governing role. Nor would the absence of the governing agency in its governing role imply that it would be absent in itself.

It would not be admissible [for the body] to be the substrate¹⁶⁸ for the 'possible absence' of the governing agency in itself, because the governing agency in itself is a 'substantial being' clearly different from [the] body. Further, it would not be admissible for the entity [i.e., the body] to be the substrate for the possibility of something clearly different from [the entity itself].

In summary, the body may not be the substrate for the 'possible [existence therein]' by the soul, since it is a being clearly different from [the body], nor [may the body be the substrate] for the 'possible absence [of the soul]'. But rather, [the body] may be the substrate for the 'possible origination of the soul' in the role of a being capable of governing and of independent executive action, as well as [being the substrate] for the 'possible absence [of the soul]' from such [a role]. But [the soul's] 'possible origination' as a being capable of governing and of independent executive action would require its 'possible existence' as an essence, because the soul's origination as a 'being capable of governing and of independent executive action' would not be possible without MS 160b its origination as an 'essence'. Therefore, [the soul became] like an accidental quality,

¹⁶⁷ MS gl: That is based in the body.

¹⁶⁸ L & T include here "thing" and "substrate", illustrating a gradual filling out of the sense left understood in two manuscripts at hand. The MS reads, "It would not be admissible that it be the substrate of the possibility . . .," while MS 989Ha reads, ". . . admissible that it be for the possibility . . ." In the latter two examples the antecedent is the body, as the MS notes for the following sentence.

and [the body], in view of its substantial nature, became the substrate for the 'soul's possible origination'. But [the 'soul's] possible absence' with regard to its being capable of governing and of independent executive action does not require its possible absence with regard to its own substantial nature. Because, indeed, the cessation of a given essence with regard to its being in some given circumstance, does not logically require its cessation with regard to its own identity, because the cessation of a totality [i.e., in its completeness] does not logically require the cessation of every one of its parts, in contrast to the actual realization [of the totality].¹⁶⁹ So, in that case, the body may not be the substrate for the [rational] soul's possible absence, neither as [the soul] itself nor as an accidental quality, but [the body] may be the substrate for [the 'soul's] possible existence' as an accidental quality. And this constitutes the difference between the possibility of the former [i.e., the body's being a substrate for the soul's possible existence] L 315 and the possibility of [the body's] corruption.

Further, the doctrine of the philosophers¹⁷⁰ is that after the soul has withdrawn from the body, it will have either bliss or misery [and for good reason].¹⁷¹

If [man's] soul has understanding of God Most High,
His necessary existence, and His deep flowing goodness,
namely, how He has provided everything needful
how He has given everything its physical constitution,
and provided it with [divine] instruction; and further,
[if man's soul] is self-purified of defects,
and has cleared itself of stains from any unseemly event,
if it is free of diseased conditions,
and has ceased pursuing whims that leave repulsive traits,
and has turned from corporeal diversions leading to foul habits,

¹⁶⁹ MS gl: I.e., in the actual realization of a totality there must be the actual realization of all its parts.

¹⁷⁰ MS gl: Namely, those holding the doctrine of the permanent survival of the soul.

Presumably, this gloss and the term 'philosophers' refer to Muslim philosophers, as different from non-Muslim secular philosophers, in view of the context.

¹⁷¹ As noted for the Baydawi text corresponding: cf. the Qur'anic declaration, "A day is coming when not a soul shall speak except by His permission, some being in misery and some in bliss." [Qur'an 11:105]

then [his soul] can delight in ecstasy, complete and noble,
 that brings together virtues of learning and character;
 then it joins in community with others so delivered and sanctified,
 and with all angels made worthy of veneration,
 "When it returns to its Lord in joy and bringing joy." [Q 89:28]
 But if [man's] soul [wickedly] stays ignorant of God Most High,
 [if man in his soul] trusts futilities that lead astray,
 —as when a partner [with God] is affirmed and called that
 from which God's name must be kept sacred, distant and high,—
 then [man's soul] will suffer to perceive [his wicked] ignorance,
 and [again he suffers] longing for [some treasure of] knowledge,
 and [again he will suffer] despairing his loss;
 [then the soul], an immortal being made to be immortal,
 can hope to come again to this world and win immortality's
 mark,
 crying, "Ah, how we long for [life's] return;
 never will we call our Lord's signs lies,
 but we will be faithful believers." [Qur'an 6:27]
 However, if [man's soul] should have understanding of God,
 His necessary existence as it has been set forth,
 and even if [his soul] gets the body's diseased condition,
 with a repulsive character and evil habits,
 but yet without trusting in futilities that lead astray,
 then [the soul] shall be punished for inclining to these things,
 but its penalty for involvement in them shall be remitted
 after as long [a time] as it remained deeply engrossed in them,
 until all wickedness shall cease;¹⁷²
 and then [man's soul] shall be snatched
 out from the Fire and shall enter the Garden.
 O may God set us [at last] among happy and righteous [souls],
 and may He call us up alive in company with those who love
 good,

¹⁷² MS gl: [I.e., until] these loathsome defects [of the body cease], then the distress will cease. In the divine book God has referred to the distress that is everlasting and to that which passes away where He states, "God will not forgive when something has been made His associate, but He forgives whomever He wills for anything else" [Qur'an 4:48]. This is because association [of anything with God] is a futile belief, while anything other than that is from conditions of the body. [From 'Ibri's commentary on Baydawi's *Tawali'*.]

“upon whom no fear comes nor do they grieve.”

[Qur'an 2:38, etc.]

May He gather us “among those favored of God,—

the prophets, and people of truth,

the martyrs, and people of virtue,—

Oh, they will be excellent companions!”

[Qur'an 4:69]

[END OF BOOK ONE]

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